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ABSTRACT

This report summarizes the achievement information provided by state educational agencies for the Migrant Education Program, 1986-87. Of the 34 states submitting achievement information for the regular term, 27 used norm-referenced tests, 9 used criterion-referenced tests, and 2 used locally developed instruments. Of the 15 states submitting achievement information for the summer term, 6 used norm referenced tests, 8 used criterion referenced tests, and 2 used locally developed instruments. All states that submitted data tested reading and mathematics; 24 tested language arts; and 4 or fewer tested English as second language, Spanish or native language arts, science, social studies, spelling, reference skills, and elementary skills. Several factors preclude a precise national estimate of the achievement of migrant education participants: (1) the variety of test types and range of test measures used; (2) under-testing of currently migrant students because of their mobility and language deficits; (3) incompatibility of standardized testing with the short-term basis of many migrant projects or the cyclical patterns of migrant movement; and (4) the inadequacy of reading and mathematics tests as measures of the impact of highly diversified programs. Individual sections for the District of Columbia, Puerto Rico, and all states except Hawaii describe the services delivered to migrant students, and, where applicable, provide information on achievement testing and tables of test results. Appendices describe the methodology used, and summarize data for about 50,000 migrant students in 17 states using a pretest/posttest norm referenced model and expressing achievement results in normal curve equivalent scores. This report contains 83 tables. (SV)

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A SUMMARY OF STATE CHAPTER 1 MIGRANT EDUCATION PROGRAM PARTICIPATION AND ACHIEVEMENT INFORMATION

1986-87

Volume 2: Achievement

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A SUMMARY OF STATE CHAPTER 1 MIGRANT EDUCATION PROGRAM PARTICIPATION AND ACHIEVEMENT INFORMATION

1986-87

VOLUME 2: ACHIEVEMENT

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U.S. Department of Education

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A SUMMARY OF STATE CHAPTER 1 MIGRANT EDUCATION PROGRAM PARTICIPATION AND ACHIEVEMENT INFORMATION FOR 1986-87

EXECUTIVE SUMMARY

This report encompasses two volumes and summarizes the participation and achievement information provided by state educational agencies (SEAs) on the ECIA Chapter 1 Migrant Education Program for the 1986-87 school year. The 1986-87 school year was the third year in which SEAs were required to submit participation information using a prescribed format (the State Performance Report).[1] For achievement information, statewide data summaries were requested, although no specific format was required.

Volume 1 provides the participation information, while this volume presents state-by-state descriptions of the types and results of the achievement information submitted by SEAs.

Thirty-four states (out of 48) provided statewide achievement information for the regular term.[2] The states used various types of tests. Norm referenced tests were used in 27 states, while nine states used criterion referenced tests, and two states used locally-developed instruments. In the summer term, 15 states (out of 44) provided statewide achievement information.[3] Summer term achievement testing was distributed among norm referenced tests (six states), criterion referenced tests (eight states), and locally-developed instruments (two states).

Several factors affect the precision of an assessment of achievement outcomes in migrant education projects. Among the most important factors are:

- Since there were no standardized reporting requirements, states provided information from a variety of test types (such as norm referenced, criterion referenced, and locally-developed), using a range of test

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[1]In 1986-87, State Performance Reports were received from 49 states, the District of Columbia, and Puerto Rico. Hawaii does not participate in the migrant education program.

[2]Three states did not operate migrant education projects in the regular term.

[3]Seven states did not operate migrant education projects in the summer term.

measures (such as normal curve equivalents, grade equivalents, number of objectives mastered, and number of skills mastered);

- Currently migrant students were typically the least likely to be part of project evaluation testing (especially testing with a pre/post design) because of their mobility and their language deficits;

- Standardized tests, with norms for fall and/or spring testing, may not be compatible with the short term basis of many migrant projects or the cyclical patterns of migrant movement; and

- Most states submitted results for participants tested in reading and mathematics. However, projects funded by the Chapter 1 migrant education program tended to be highly diversified. Therefore, evaluations of performance in these two subject areas may be inappropriate or inadequate measures of the impact of the services provided.

While these factors preclude the development of a precise national estimate of the achievement of migrant education participants, summary findings are presented in this report for those states reporting regular term achievement results, expressed in normal curve equivalent scores (NCEs), using a pretest/posttest norm referenced model. This achievement information was reported for about 41,000 Chapter 1 migrant students in 15 states tested on an annual test cycle in reading and slightly over 28,000 tested in mathematics. About 9,000 Chapter 1 migrant students in 13 states were reported tested on a fall-spring test cycle in reading and about 8,000 in mathematics. The majority of students tested were in the elementary grades. Seventy-two percent of the total number tested in both fall-spring reading and mathematics were in grades 1 through 6, compared to 64 percent in annual reading and 67 percent in annual mathematics.

Children of migrant workers traditionally have been regarded as one of the most educationally disadvantaged segments of the school-aged population. Pretest percentiles in all cycles, subjects, and grades fell below the 42nd percentile, and over half of the summary pretest percentiles fell at or below the 25th percentile. Pretest percentiles tended to be higher for students tested on an annual cycle. In both the annual and fall-spring cycles, summary pretest percentiles were higher in mathematics than in reading. On

average, pretest percentiles were higher at the elementary level than at the secondary level.

While pretest percentiles were lower for students tested on a fall-spring cycle, these participants demonstrated higher NCE gains than students tested on an annual cycle. Summary NCE gains within test cycles tended to be higher in mathematics than in reading.

For the Chapter 1 migrant students tested on an annual test cycle in reading, the total summary gains ranged from -0.5 NCE in grade 12 to 2.7 NCEs in grade 6. The total summary pretest percentiles ranged from the 18th percentile in grade 11 to the 26th percentile in grade 2.

In mathematics, for migrant education participants tested on an annual test cycle, the total summary gains ranged from -0.5 NCE in grade 8 to 3.2 NCEs in grade 7. The total summary pretest percentiles ranged from the 30th percentile in grade 9 to the 41st percentile in grade 2.

For the Chapter 1 migrant students tested on a fall-spring test cycle in reading, the total summary gains ranged from -0.6 NCE in grade 12 to 8.5 NCEs in grade 3. The total summary pretest percentiles ranged from the 11th percentile in grade 11 to the 20th percentile in grades 2, 4, and 6.

In mathematics, for migrant education participants tested on a fall-spring test cycle, the total summary gains ranged from 3.2 NCEs in grade 12 to 11.8 NCEs in grade 2. The total summary pretest percentiles ranged from the 16th percentile in grade 11 to the 29th percentile in grades 6 and 8.

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INTRODUCTION

Recognizing that the migratory children of migratory agricultural workers were disadvantaged, P.L. 89-750 was enacted in November 1966, amending Title I of the Elementary and Secondary Education Act (ESEA) to authorize a program of services for these youths. The 1986-87 migrant education program, authorized by Sections 141-143 of Chapter 1 of the Education Consolidation and Improvement Act (ECIA), provided funds to state educational agencies (SEAs) for "programs and projects...which are designed to meet the special educational needs of migratory children of migratory agricultural workers or of migratory fishermen, and to coordinate such programs and projects with similar programs and projects in other states, including the transmittal of pertinent information with respect to school records of such children" (Section 142).

Overview

Sections 555(d) and (e) of Chapter 1, respectively, specify SEA responsibilities for (1) maintaining records and information, and (2) conducting evaluations and collecting data. These sections state:

> (d) Records and Information: Each State educational agency shall keep such records and provide such information to the Secretary as may be required for fiscal audit and program evaluation (consistent with the responsibilities of the Secretary under this chapter).
>
> (e) Evaluation: Each State educational agency shall-
>
> (1) conduct an evaluation of the programs assisted under this chapter at least every two years and shall make public the results of that evaluation; and
>
> (2) collect data on the race, age, and gender of children served by the programs assisted under this chapter and on the number of children served by grade-level under the programs assisted under this chapter.

While these requirements obligated SEAs to report data to the Federal government, the U.S. Department of Education (ED) did not initially specify the format nor provide guidelines for the information to be collected. As a result, states developed their own locally relevant criteria for collecting participation information.

In 1983, however, the ED General Counsel determined that all SEAs were required by the Chapter 1 statute to submit standardized information on the migrant education program to ED. To implement this decision, ED solicited input from SEAs on the most appropriate measures and assembled a standard format for reporting of the participation information. The resulting standard form (the State Performance Report) received final approval by the Office of Management and Budget (OMB) in the spring of 1985. The 1984-85 school year was the first year of data collection using this form.

Further, ED published rules and regulations pertaining to these requirements in Volume 34 of the Code of Federal Regulations (7/1/86). In reference to the evaluation requirement, the Department stated:

§204.23 Evaluation.

(a) SEA evaluation.

(1) Each SEA shall-

(i) Conduct an evaluation of the Chapter 1 programs in the State at least once every two years and make public the results of that evaluation; and

(ii) Collect data annually on-

(A) The race, age, and gender of children served by the Chapter 1 programs in the State; and

(B) The number of children served by grade level under the Chapter 1 programs in the State.

(2) To meet the requirements in paragraph (a)(1)(i) of this section, the SEA may, for each Chapter 1 program, aggregate evaluation data collected under paragraph (b)(1)(i) of this section to obtain Statewide totals.

This report summarizes the 1986-87 State Performance Reports for the ECIA Chapter 1 Migrant Education Program.[1] The information for the 1986-87 school year was submitted by the SEAs in the winter and early spring of 1988. These performance

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[1]In 1986-87, State Performance Reports were received from 49 states, the District of Columbia, and Puerto Rico. Hawaii does not participate in the migrant education program.

reports provide information on the number of participants (by gender, year of birth, ethnic group, migrant status, and grade by regular term/summer term), the types of services provided (by regular term/summer term), the number of staff (by regular term/summer term), and achievement (by regular term/summer term). The participation information, collected and reported according to the prescribed format, is presented in Volume 1.

For achievement, statewide data summaries were requested, and any format desired by the SEA could be used. This volume, Volume 2, provides a description of the achievement information submitted by the SEAs for the 1986-87 school year. Although no specific format was prescribed, states were encouraged to provide data by school term, grade, subject area, and testing schedule.

Summary of Achievement Information Reported by the States[2]

Regular Term Reports

Thirty-four states provided statewide achievement information in the regular term.[3] The most prevalent subject areas for which information was reported were reading and mathematics (in 33 of the 34 states). In addition, achievement information in the other language arts area was provided by 17 states, while five states reported achievement information on English to limited English background students. (Table 1)

The states used various types of tests. Norm referenced tests were the most frequently used: results from norm referenced tests were reported in 27 states. Nine states used criterion referenced tests, while two states used locally-developed instruments. (Table 2)

Twenty-five states provided information on the number of Chapter 1 migrant education participants tested using norm referenced measures. Almost 65,000 Chapter 1 migrant students were tested in reading and almost 50,000 were tested in mathematics. Eight states provided information on the number

---

[2]This discussion is based on information submitted in the State Performance Reports and information obtained through telephone conversations with state officials. Appendix A discusses the methodology used in reviewing the submitted information.

[3]Three states did not operate migrant education projects in the regular term. One state provided achievement information from a variety of measures for individual school districts.

of Chapter 1 migrant education participants tested using criterion referenced tests or locally-developed measures. Over 7,000 Chapter 1 migrant students were tested in reading and over 6,500 were tested in mathematics. (Tables 3 and 4)

Of the total number of participants receiving migrant education services in the regular term, 24 percent were tested in reading and 19 percent were tested in mathematics using a variety of test measures. Information was not available, however, to determine what percentage of those tested in reading or mathematics actually received reading or mathematics services.[4] (Tables 3 and 4)

In the nine states that used criterion referenced tests and the two that used locally-developed tests, a variety of measures were used to assess achievement. (Table 5)

---

[4]In six states, there were more participants tested in reading than were reported receiving reading services in the Chapter 1 Migrant Education Program, and in six states, there were more participants tested in mathematics than were reported receiving mathematics services in the Chapter 1 Migrant Education Program.

Table 1

Regular Term
Statewide Achievement Information
by Subject Area and State -- 1986-87
Chapter 1 Migrant Education Program

State	Statewide Achievement Data Provided	Subject Area				
		Reading	Math	Other Language Arts	English to Limited English Background	Other
Alabama	X	X	X			
Alaska	X	X	X	X		
Arizona	X	X	X	X		
Arkansas	X	X	X			
California	X	X	X			
Colorado	X	X	X			
Connecticut						
Delaware						
District of Columbia						
Florida	X	X	X			
Georgia	X	X	X	X		X
Idaho	X	X	X	X	X	
Illinois	X	X	X	X	X	X
Indiana	X	X	X			
Iowa[a/]	X					
Kansas	X	X	X			
Kentucky	X	X	X	X		X
Louisiana[b/]						
Maine	X	X	X			
Maryland						
Massachusetts	X	X	X	X		X
Michigan						
Minnesota						
Mississippi	X	X	X	X		
Missouri	X	X	X	X	X	
Montana[c/]						
Nebraska[c/]						
Nevada	X	X	X	X		
New Hampshire						
New Jersey	X	X	X			X

Table 1 (continued)

State	Statewide Achievement Data Provided	Subject Area				
		Reading	Math	Other Language Arts	English to Limited English Background	Other
New Mexico	X	X	X	X		
New York	X	X	X		X	X
North Carolina	X	X	X	X		
North Dakota						
Ohio	X	X	X			
Oklahoma	X	X	X	X		X
Oregon	X	X	X	X	X	X
Pennsylvania	X	X	X			
Puerto Rico	X	X	X			X
Rhode Island						
South Carolina	X	X	X			
South Dakota	X	X	X	X		
Tennessee	X	X	X			
Texas	X	X	X			
Utah						
Vermont						
Virginia						
Washington	X	X	X	X		X
West Virginia						
Wisconsin	X	X	X	X		X
Wyoming[c/]						
Total	34	33	33	17	5	11

a/ Iowa provided statewide achievement information in a narrative format, but did not provide the information by subject area.

b/ Louisiana did not provide a statewide summary of achievement data. Achievement information from a variety of measures was submitted for individual parishes.

c/ Montana, Nebraska, and Wyoming did not operate migrant education projects in the regular term.

Table 2

Regular Term
Statewide Achievement Testing
by Type and State -- 1986-87
Chapter 1 Migrant Education Program

State	Norm Referenced	Criterion Referenced	Locally-Developed
Alabama	X		
Alaska	X		
Arizona	X		
Arkansas	X	X	
California	X		
Colorado	X	X	
Connecticut			
Delaware			
District of Columbia			
Florida	X		
Georgia	X		
Idaho	X		
Illinois		X	
Indiana	X		
Iowa	X		
Kansas	X		
Kentucky	X		
Louisiana[a/]			
Maine	X		
Maryland			
Massachusetts		X	
Michigan			
Minnesota			
Mississippi	X		
Missouri		X	
Montana[b/]			
Nebraska[b/]			
Nevada	X		
New Hampshire			
New Jersey	X		

Table 2 (continued)

State	Norm Referenced	Criterion Referenced	Locally-Developed
New Mexico	X		
New York		X	
North Carolina	X		
North Dakota			
Ohio	X		
Oklahoma	X		
Oregon			X
Pennsylvania	X		
Puerto Rico		X	
Rhode Island			
South Carolina	X		
South Dakota	X		
Tennessee	X	X	
Texas	X		
Utah			
Vermont			
Virginia			
Washington	X		
West Virginia			
Wisconsin		X	X
Wyoming[b/]			
Total	27	9	2

a/ Louisiana did not provide a statewide summary of achievement data. Achievement information from a variety of measures was submitted for individual parishes.

b/ Montana, Nebraska, and Wyoming did not operate migrant education projects in the regular term.

Table 3

Regular Term
Participants Receiving Reading Services and Number Tested in Reading by State -- 1986-87
Chapter 1 Migrant Education Program

State	Number of Participants[a]	Number Receiving Reading[a]	Number Tested in Reading: Using Norm Referenced Measures	Number Tested in Reading: Using Criterion Referenced or Locally-Developed Measures
Alabama	2,275	732	520	-
Alaska	4 541	2,009	1,680	-
Arizona	11,439	3,972	7,406[b]	-
Arkansas	6,696	3,451	1,359	101
California	102,337	30,829	18,538	-
Colorado	1,992	927	361	529
Connecticut[c]	4,048	1,184	-	-
Delaware[c]	345	241	-	-
District of Columbia[c]	70	24	-	-
Florida	17,199	5,942	2,412	-
Georgia	4,522	1,794	420	-
Idaho	1,750	781	473	-
Illinois	757	329	-	630[b]
Indiana	2,569	390	239	-
Iowa	137	54	[d]	-
Kansas	4,286	804	725	-
Kentucky	3,486	2,362	1,762	-
Louisiana[c]	5,854	4,168	-	-
Maine	3,220	2,561	724	-
Maryland[c]	30	22	-	-
Massachusetts	3,170	2,665	-	2,700[f]
Michigan[c]	6,226	4,337	-	-
Minnesota[c]	490	310	-	-
Mississippi	3,270	2,153	1,065	-
Missouri	1,158	547	-	[g]
Montana[h]	0	0	-	-
Nebraska[h]	0	0	-	-
Nevada	548	427	175	-
New Hampshire[c]	39	9	-	-
New Jersey	1,411	417	469[i]	-

Table 3 (continued)

State	Number of Participants[a/]	Number Receiving Reading[a/]	Number Tested in Reading: Using Norm Referenced Measures	Number Tested in Reading: Using Criterion Referenced or Locally-Developed Measures
New Mexico	1,474	11	123[b/]	-
New York	4,594	3,688	-	2,053
North Carolina	4,074	2,485	1,340	-
North Dakota[c/]	407	407	-	-
Ohio	1,369	388	92	-
Oklahoma	1,753	933	621	-
Oregon	8,224	1,841	-	i/
Pennsylvania	2,594	788	200	-
Puerto Rico	7,921	320	-	713[b/]
Rhode Island[c/]	73	73	-	-
South Carolina	74	64	38	-
South Dakota	64	53	18	-
Tennessee	114	114	59	12
Texas	63,733	41,521	23,597	-
Utah[c/]	58	24	-	-
Vermont[c/]	653	25	-	-
Virginia[c/]	589	35	-	-
Washington[k/]	8,210	5,396	95	-
West Virginia[c/]	72	14	-	-
Wisconsin	759	576	-	525
Wyoming[h/]	0	0	-	-
Total	300,674	132,197	64,511	7,263

a/ Data from A Summary of State Chapter 1 Migrant Education Participation and Achievement for 1986-87, Volume 1: Participation, 1989.

b/ In Arizona, Illinois, New Mexico, and Puerto Rico, there were more participants tested in reading than were reported receiving reading services. SEA officials explained that the number tested represents migrant education participants given a reading test even though they may have received services other than reading.

Table 3 (continued)

c/ Connecticut, Delaware, the District of Columbia, Maryland, Michigan, Minnesota, New Hampshire, North Dakota, Rhode Island, Utah, Vermont, Virginia, and West Virginia did not provide achievement information for the regular term.

d/ Iowa submitted achievement information in a narrative format which did not include the number of participants tested by subject or grade.

e/ Louisiana did not provide a statewide summary of achievement information for the regular term. Achievement information from a variety of measures was submitted for individual parishes.

f/ Due to the nature of testing in Massachusetts, the number tested represented a duplicated count of participants, therefore, the number tested exceeds the number reported receiving reading services.

g/ Missouri tested 656 participants on a range of basic skills.

h/ Montana, Nebraska, and Wyoming did not operate migrant education projects in the regular term.

i/ In New Jersey, all children who were identified as migrant were tested through the Chapter 1 program, although they may not have received migrant education services. As a result, the number tested exceeds the number reported receiving reading services.

j/ Oregon did not provide the number tested using locally-developed measures by subject area.

k/ Washington submitted a statewide achievement report, but because the number tested was not representative of the participants receiving migrant education services, the Washington SEA requested that the NCE scores not be reported. As a result, Washington's information was not included in the state level aggregation of NCE data and are not a part of the total number tested in Tables 11, 12, 13, and 14.

Table 4

Regular Term
Participants Receiving Mathematics Services and Number Tested in Mathematics by State -- 1986-87
Chapter 1 Migrant Education Program

State	Number of Participants[a/]	Number Receiving Mathematics[a/]	Number Tested in Mathematics	
			Using Norm Referenced Measures	Using Criterion Referenced or Locally-Developed Measures
Alabama	2,275	1,780	903	-
Alaska	4,541	1,710	1,682	-
Arizona	11,439	3,464	7,335[b/]	-
Arkansas	6,696	2,626	1,008	101
California	102,337	23,550	17,874	-
Colorado	1,992	656	209	315
Connecticut[c/]	4,048	414	-	-
Delaware[c/]	345	210	-	-
District of Columbia[c/]	70	24	-	-
Florida	17,199	1,688	355	-
Georgia	4,522	1,440	420	-
Idaho	1,750	559	342	-
Illinois	757	243	-	536[b/]
Indiana	2,569	267	235	-
Iowa	137	35	[d/]	-
Kansas	4,286	420	261	-
Kentucky	3,486	2,800	1,762	-
Louisiana[e/]	5,854	3,023	-	-
Maine	3,220	1,905	622	-
Maryland[c/]	30	23	-	-
Massachusetts	3,170	2,681	-	2,731[f/]
Michigan[c/]	6,226	3,639	-	-
Minnesota[c/]	490	178	-	-
Mississippi	3,270	1,089	569	-
Missouri	1,158	468	-	[g/]
Montana[h/]	0	0	-	-
Nebraska[h/]	0	0	-	-
Nevada	548	248	141	-
New Hampshire[c/]	39	8	-	-
New Jersey	1,411	393	420[i/]	-

Table 4 (continued)

State	Number of Participants[a/]	Number Receiving Mathematics[a/]	Number Tested in Mathematics: Using Norm Referenced Measures	Number Tested in Mathematics: Using Criterion Referenced or Locally-Developed Measures
New Mexico	1,474	192	207[b/]	-
New York	4,594	2,240	-	1,416
North Carolina	4,074	2,152	1,340	-
North Dakota[c/]	407	407	-	-
Ohio	1,369	269	92	-
Oklahoma	1,753	1,002	631	-
Oregon	8,224	1,186	-	[j/]
Pennsylvania	2,594	424	57	-
Puerto Rico	7,921	1,429	-	1,157[b/]
Rhode Island[c/]	73	73	-	-
South Carolina	74	64	39	-
South Dakota	64	43	18	-
Tennessee	114	114	57	16
Texas	63,733	24,814	13,121	-
Utah[c/]	58	28	-	-
Vermont[c/]	653	0	-	-
Virginia[c/]	589	32	-	-
Washington[k/]	8,210	4,191	90	-
West Virginia[c/]	72	14	-	-
Wisconsin	759	491	-	491
Wyoming[h/]	0	0	-	-
Total	300,674	94,706	49,790	6,763

a/ Data from A Summary of State Chapter 1 Migrant Education Participation and Achievement for 1986-87, Volume 1: Participation, 1989.

b/ In Arizona, Illinois, New Mexico, and Puerto Rico, there were more participants tested in mathematics than were reported receiving mathematics services. SEA officials explained that the number tested represents migrant education participants given a mathematics test even though they may have received services other than mathematics.

Table 4 (continued)

c/ Connecticut, Delaware, the District of Columbia, Maryland, Michigan, Minnesota, New Hampshire, North Dakota, Rhode Island, Utah, Vermont, Virginia, and West Virginia did not provide achievement information for the regular term.

d/ Iowa submitted achievement information in a narrative format which did not include the number of participants tested by subject or grade.

e/ Louisiana did not provide a statewide summary of achievement information for the regular term. Achievement information from a variety of measures was submitted for individual parishes.

f/ Due to the nature of testing in Massachusetts, the number tested represented a duplicated count of participants, therefore, the number tested exceeds the number reported receiving mathematics services.

g/ Missouri tested 583 participants on a range of basic skills.

h/ Montana, Nebraska, and Wyoming did not operate migrant education projects in the regular term.

i/ In New Jersey, all children who were identified as migrant were tested through the Chapter 1 program, although they may not have received migrant education services. As a result, the number tested exceeds the number reported receiving mathematics services.

j/ Oregon did not provide the number tested using locally-developed measures by subject area.

k/ Washington submitted a statewide achievement report, but because the number tested was not representative of the participants receiving migrant education services, the Washington SEA requested that the NCE scores not be reported. As a result, Washington's information was not included in the state level aggregation of NCE data and are not a part of the total number tested in Tables 11, 12, 13, and 14.

Table 5

Regular Term
Number Tested Using Criterion-Referenced and Locally-Developed Measures by State--1986-87
Chapter 1 Migrant Education Program

State	Measure Used	Number Tested	
		Reading	Mathematics
Arkansas	Average Number Skills Gained	101	101
Colorado	Number of Objectives Mastered	529	315
Illinois	Percent not Meeting, Percent Meeting and/or Exceeding Standards	630	536
Massachusetts	Average Number of Skills Mastered	2,700	2,731
Missouri	Average Percent Gain	a/	a/
New York	Number of Objectives Mastered	2,053	1,416
Oregon	Success Rating (from Very Successful to Unsuccessful) by Educational Component	b/	b/
Puerto Rico	Average Number of Skills Mastered	713	1,157
Tennessee	Skills Gained	12	16
Wisconsin	Percent Successful	525	491
Total Tested		7,263	6,763

a/ Missouri tested 656 participants in reading and 583 in mathematics on a range of basic skills.

b/ Oregon did not provide the number tested using locally-developed measures by subject area.

Summer Term Reports

In the summer term, 15 states provided statewide achievement information.[5] Fifteen states provided reading and mathematics achievement. Achievement information in other language arts was provided by seven states and English to limited English background students by three states. (Table 6)

Summer term achievement results were divided among norm referenced tests (six states), criterion referenced tests (eight states), and locally-developed instruments (two states). (Table 7)

Four states provided information on the number of Chapter 1 migrant education participants tested using norm referenced measures. Almost 600 Chapter 1 migrant students were tested in both reading and in mathematics. Seven states provided information on the number of Chapter 1 migrant education participants tested using criterion referenced tests or locally-developed measures. Over 8,000 Chapter 1 migrant students were tested in both reading and in mathematics. (Tables 8 and 9)

Of the total number of participants receiving migrant education services in the summer term, 8 percent were tested in reading and 9 percent were tested in mathematics using a variety of test measures. Information was not available, however, to determine what percentage of those tested in reading or mathematics actually received reading or mathematics services.[6] (Tables 8 and 9)

In the eight states that used criterion referenced tests and the two that used locally-developed tests, a variety of measures were used to assess achievement. (Table 10)

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[5]Seven states did not operate migrant education projects in the summer term. One state provided achievement information from a variety of measures for individual school districts.

[6]In two states, there were more participants tested in reading than were reported receiving reading services in the Chapter 1 Migrant Education Program, and in two states, there were more participants tested in mathematics than were reported receiving mathematics services in the Chapter 1 Migrant Education Program.

Table 6

Summer Term
Statewide Achievement Information
by Subject Area and State -- 1986-87
Chapter 1 Migrant Education Program

State	Statewide Achievement Data Provided	Subject Area				
		Reading	Math	Other Language Arts	English to Limited English Background	Other
Alabama						
Alaska						
Arizona						
Arkansas						
California						
Colorado	X	X	X			
Connecticut						
Delaware	X	X	X			
District of Columbia[a/]						
Florida						
Georgia						
Idaho						
Illinois	X	X	X	X	X	X
Indiana	X	X	X			
Iowa[a/]						
Kansas						
Kentucky						
Louisiana[a/]						
Maine						
Maryland	X	X	X	X		
Massachusetts	X	X	X	X		X
Michigan						
Minnesota	X	X	X	X		
Mississippi[a/]						
Missouri	X	X	X	X	X	X
Montana[b/]						
Nebraska						
Nevada[a/]						
New Hampshire						
New Jersey						

Table 6 (continued)

State	Statewide Achievement Data Provided	Subject Area				
		Reading	Math	Other Language Arts	English to Limited English Background	Other
New Mexico						
New York						
North Carolina						
North Dakota	X	X	X			
Ohio						
Oklahoma[a/]						
Oregon	X	X	X			X
Pennsylvania						
Puerto Rico[a/]						
Rhode Island	X	X	X			
South Carolina	X	X	X			
South Dakota						
Tennessee	X	X	X	X	X	X
Texas						
Utah	X	X	X			
Vermont						
Virginia						
Washington						
West Virginia						
Wisconsin	X	X	X	X		X
Wyoming						
Total	15	15	15	7	3	6

a/ The District of Columbia, Iowa, Louisiana, Mississippi, Nevada, Oklahoma, and Puerto Rico did not operate migrant projects in the summer term.

b/ Montana submitted district level achievement information.

Table 7

Summer Term
Statewide Achievement Testing
by Type and State -- 1986-87
Chapter 1 Migrant Education Program

State	Norm Referenced	Criterion Referenced	Locally-Developed
Alabama			
Alaska			
Arizona			
Arkansas			
California			
Colorado		X	
Connecticut			
Delaware	X		
District of Columbia[a/]			
Florida			
Georgia			
Idaho			
Illinois	X	X	
Indiana	X		
Iowa[a/]			
Kansas			
Kentucky			
Louisiana[a/]			
Maine			
Maryland	X		
Massachusetts		X	
Michigan			
Minnesota		X	
Mississippi[a/]			
Missouri		X	
Montana[b/]			
Nebraska			
Nevada[a/]			
New Hampshire			
New Jersey			

Table 7 (continued)

State	Norm Referenced	Criterion Referenced	Locally-Developed
New Mexico			
New York			
North Carolina			
North Dakota	X		
Ohio			
Oklahoma[a/]			
Oregon			X
Pennsylvania			
Puerto Rico[a/]			
Rhode Island		X	
South Carolina		X	
South Dakota			
Tennessee		X	
Texas			
Utah	X		
Vermont			
Virginia			
Washington			
West Virginia			
Wisconsin			X
Wyoming			
Total	6	8	2

a/ The District of Columbia, Iowa, Louisiana, Mississippi, Nevada, Oklahoma, and Puerto Rico did not operate migrant projects in the summer term.

b/ Montana submitted district level achievement information.

Table 8

Summer Term
Participants Receiving Reading Services and Number Tested in Reading by State -- 1986-87
Chapter 1 Migrant Education Program

State	Number of Participants[a]	Number Receiving Reading[a]	Number Tested in Reading: Using Norm Referenced Measures	Number Tested in Reading: Using Criterion Referenced or Locally-Developed Measures
Alabama[b]	444	179	-	-
Alaska[b]	216	183	-	-
Arizona[b]	1,476	1,087	-	-
Arkansas[b]	17	17	-	-
California[b]	49,981	32,057	-	-
Colorado	1,830	1,619	-	1,456
Connecticut[b]	690	262	-	-
Delaware	449	346	58	-
District of Columbia[c]	0	0	-	-
Florida[b]	280	210	-	-
Georgia[b]	2,658	1,898	-	-
Idaho[b]	1,869	736	-	-
Illinois	1,961	1,367	[d]	1,895[d]
Indiana	1,317	299	40	-
Iowa[c]	0	0	-	-
Kansas[b]	960	331	-	-
Kentucky[b]	531	259	-	-
Louisiana[c]	0	0	-	-
Maine[b]	369	325	-	-
Maryland	439	281	134	-
Massachusetts	3,807	3,092	-	3,145[e]
Michigan[b]	6,522	6,657	-	-
Minnesota	2,796	1,335	-	781
Mississippi[c]	0	0	-	-
Missouri	479	323	-	[f]
Montana[g]	750	422	-	-
Nebraska[b]	690	487	-	-
Nevada[c]	0	0	-	-
New Hampshire[b]	68	3	-	-
New Jersey[b]	926	926	-	-

Table 8 (continued)

State	Number of Participants[a/]	Number Receiving Reading[a/]	Number Tested in Reading: Using Norm Referenced Measures	Number Tested in Reading: Using Criterion Referenced or Locally-Developed Measures
New Mexico[b/]	658	195	-	-
New York[b/]	2,308	2,071	-	-
North Carolina[b/]	3,171	2,143	-	-
North Dakota	943	782	h/	-
Ohio[b/]	1,979	321	-	-
Oklahoma[c/]	0	0	-	-
Oregon	4,079	2,172	-	i/
Pennsylvania[b/]	892	662	-	-
Puerto Rico[c/]	0	0	-	-
Rhode Island	22	22	-	i/
South Carolina	679	368	-	309
South Dakota[b/]	24	22	-	-
Tennessee	303	303	-	245
Texas[b/]	3,350	1,827	-	-
Utah	686	640	344	-
Vermont[b/]	228	143	-	-
Virginia[b/]	304	328	-	-
Washington[b/]	2,405	1,906	-	-
West Virginia[b/]	44	44	-	-
Wisconsin	606	433	-	388
Wyoming[b/]	545	20	-	-
Total	104,751	69,103	576	8,219

a/ Data from A Summary of State Chapter 1 Migrant Education Participation and Achievement for 1986-87, Volume 1: Participation, 1989.

b/ Alabama, Alaska, Arizona, Arkansas, California, Connecticut, Florida, Georgia, Idaho, Kansas, Kentucky, Maine, Michigan, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Washington, West Virginia, and Wyoming did not provide achievement information for the summer term.

Table 8 (continued)

c/ The District of Columbia, Iowa, Louisiana, Mississippi, Nevada, Oklahoma, and Puerto Rico did not operate migrant projects in the summer term.

d/ In Illinois there were more participants tested in reading than were reported receiving services. An SEA official explained that the number tested represented migrant education participants given a reading test even though they may have received services other than reading. Illinois also provided reading achievement data from a point-in-time longitudinal study which used norm referenced testing. The number of participants tested was not given.

e/ Due to the nature of testing in Massachusetts, the number tested represented a duplicated count of participants, therefore, the number tested exceeds the number reported receiving reading services.

f/ Missouri tested 217 participants on a range of basic skills.

g/ Montana submitted district level achievement information.

h/ North Dakota provided NCE gains by grade, but did not report the number tested.

i/ Oregon did not provide the number tested using locally-developed measures by subject area.

j/ Rhode Island submitted the evaluation instruments and results correlated by grade level to lesson. The number tested was not provided.

Table 9

Summer Term
Participants Receiving Mathematics Services and Number Tested in Mathematics by State -- 1986-87
Chapter 1 Migrant Education Program

State	Number of Participants[a]	Number Receiving Mathematics[a]	Number Tested in Mathematics	
			Using Norm Referenced Measures	Using Criterion Referenced or Locally-Developed Measures
Alabama[b]	444	209	-	-
Alaska[b]	216	37	-	-
Arizona[b]	1,476	875	-	-
Arkansas[b]	17	0	-	-
California[b]	49,981	32,464	-	-
Colorado	1,830	1,697	-	1,443
Connecticut[b]	690	50	-	-
Delaware	449	346	60	-
District of Columbia[c]	0	0	-	-
Florida[b]	280	207	-	-
Georgia[b]	2,658	1,622	-	-
Idaho[b]	1,869	727	-	-
Illinois	1,961	1,343	[d]	1,910[d]
Indiana	1,317	210	42	-
Iowa[c]	0	0	-	-
Kansas[b]	960	304	-	-
Kentucky[b]	531	233	-	-
Louisiana[c]	0	0	-	-
Maine[b]	369	329	-	-
Maryland	439	266	134	-
Massachusetts	3,807	3,198	-	3,261[e]
Michigan[b]	6,522	6,607	-	-
Minnesota	2,796	1,373	-	777
Mississippi[c]	0	0	-	-
Missouri	479	139	-	[f]
Montana[g]	750	450	-	-
Nebraska[b]	690	515	-	-
Nevada[c]	0	0	-	-
New Hampshire[b]	68	1	-	-
New Jersey[b]	926	926	-	-

Table 9 (continued)

State	Number of Participants[a]	Number Receiving Mathematics[a]	Number Tested in Mathematics	
			Using Norm Referenced Measures	Using Criterion Referenced or Locally-Developed Measures
New Mexico[b]	658	471	-	-
New York[b]	2,308	1,453	-	-
North Carolina[b]	3,171	1,868	-	-
North Dakota	943	943	h	-
Ohio[b]	1,979	358	-	-
Oklahoma[c]	0	0	-	-
Oregon	4,079	2,248	-	i
Pennsylvania[b]	892	577	-	-
Puerto Rico[c]	0	0	-	-
Rhode Island	22	22	-	j
South Carolina	679	367	-	309
South Dakota[b]	24	8	-	-
Tennessee	303	303	-	239
Texas[b]	3,350	1,618	-	-
Utah	686	595	344	-
Vermont[b]	228	143	-	-
Virginia[b]	304	293	-	-
Washington[b]	2,405	1,840	-	-
West Virginia[b]	44	44	-	-
Wisconsin	606	513	-	388
Wyoming[b]	545	26	-	-
Total	104,751	67,818	580	8,327

a/ Data from A Summary of State Chapter 1 Migrant Education Participation and Achievement for 1986-87, Volume 1: Participation, 1989.

b/ Alabama, Alaska, Arizona, Arkansas, California, Connecticut, Florida, Georgia, Idaho, Kansas, Kentucky, Maine, Michigan, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Washington, West Virginia, and Wyoming did not provide achievement information for the summer term.

Table 9 (continued)

c/ The District of Columbia, Iowa, Louisiana, Mississippi, Nevada, Oklahoma, and Puerto Rico did not operate migrant projects in the summer term.

d/ In Illinois there were more participants tested in mathematics than were reported receiving services. An SEA official explained that the number tested represented migrant education participants given a mathematics test even though they may have received services other than mathematics. Illinois submitted norm referenced achievement information for reading, but not for mathematics.

e/ Due to the nature of testing in Massachusetts, the number tested represented a duplicated count of participants, therefore, the number tested exceeds the number reported receiving mathematics services.

f/ Missouri tested 31 participants on a range of basic skills.

g/ Montana provided district level information.

h/ North Dakota provided NCE gains by grade, but did not report the number tested.

i/ Oregon did not provide the number tested using locally-developed measures by subject area.

j/ Rhode Island submitted the evaluation instruments and results correlated by grade level to lesson. The number tested was not provided.

Table 10

Summer Term
Number Tested Using Criterion-Referenced and Locally-Developed
Measures by State--1986-87
Chapter 1 Migrant Education Program

State	Measure Used	Number Tested	
		Reading	Mathematics
Colorado	Average Instruction Hours Per Week/ Average Indicators of Achievement	1,456	1,443
Illinois	Number Meeting Standards	1,895	1,910
Massachusetts	Average Skills Mastered	3,145	3,261
Minnesota	Estimated Achievement Gains	781	777
Missouri	Average Number of Objectives Mastered/ Average Percent of Gain	a/	a/
Oregon	Success Rating (from Very Successful to Unsuccessful) by Educational Component	b/	b/
Rhode Island	Correlation of Grade Level to Lesson	c/	c/
South Carolina	Objectives Mastered	309	309
Tennessee	Skills Mastered	245	239
Wisconsin	Objectives Mastered	388	388
Total Tested		8,219	8,327

a/ Missouri tested 217 participants in reading and 31 in mathematics on a range of basic skills.

b/ Oregon did not provide the number tested using locally-developed measures.

c/ Rhode Island submitted the evaluation instruments and results correlated by grade level to lesson. The number of students tested was not provided.

Summary Results from Selected States

Eighteen states reported achievement information for the regular term by grade expressed in normal curve equivalent (NCE) scores using a pretest/posttest norm referenced model.[7]

Although the summary figures for this group of states are not precise national estimates of the overall achievement levels of migrant education participants, they do provide a measure of achievement for the participants tested in these selected states.

Several factors affect the precision of an assessment of achievement outcomes in migrant education projects. Among the most important factors are:

- Since there were no standardized reporting requirements, states provided information from a variety of test types (such as norm referenced, criterion referenced, and locally-developed), using a range of test measures (such as normal curve equivalents, grade equivalents, number of objectives mastered, and number of skills mastered);

- Currently migrant students were typically the least likely to be part of project evaluation testing (especially testing with a pre/post design) because of their mobility and their language deficits;

- Standardized tests, with norms for fall and spring testing, may not be compatible with the short term basis of many migrant projects or the cyclical patterns of migrant movement; and

- Most states submitted results for participants tested in reading and mathematics. However, projects funded by the Chapter 1 migrant education program tended to be highly diversified. Thus, evaluations of performance in these two subject areas may be inappropriate or inadequate measures of the impact of the services provided.

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[7]The NCE is a type of standard score resulting from the division of the normal curve into 99 equal units, and is derived from the percentile rank. The mean of the NCE score distribution is 50, and the standard deviation is 21.06.

With the above cautions in mind, the following summary findings are presented for those states reporting regular term achievement results, expressed in NCE scores, using a pretest/posttest norm referenced model.

The largest number of participants were tested in annual reading (41,275), followed by annual mathematics (28,450), fall-spring reading (9,044), and fall-spring mathematics (7,822). The majority of students tested were in the elementary grades. Seventy-two percent of the total number tested in both fall-spring reading and mathematics were in grades 1 through 6, compared to 64 percent in annual reading and 67 percent in annual mathematics. (Tables 11, 12, 13, and 14 and Figure 1)

Children of migrant workers traditionally have been regarded as one of the most educationally disadvantaged segments of the school-aged population. Pretest percentiles in all cycles, subjects, and grades fell below the 42nd percentile, and over half of the summary pretest percentiles fell at or below the 25th percentile. Pretest percentiles tended to be higher for students tested on an annual cycle. In both the annual and fall-spring cycles, summary pretest percentiles were higher in mathematics than in reading. On average, pretest percentiles were higher at the elementary level than at the secondary level. (Tables 11, 12, 13, and 14)

While pretest percentiles were lower for students tested on a fall-spring cycle, these participants demonstrated higher NCE gains than students tested on an annual cycle. Summary NCE gains within test cycles tended to be higher in mathematics than in reading. (Tables 11, 12, 13, and 14)

Annual Test Results. Fifteen states reported achievement results based on an annual test cycle.[8] In these states there were 41,275 participants tested in reading and 28,450 tested in mathematics. (Figure 1) For these states, positive NCE gain scores were experienced in all grades except grades 2, 10 and 12 in reading and grade 8 in mathematics. The total summary gains in reading ranged from -0.5 NCE in grade 12 to 2.7 NCEs in grade 6. The total summary pretest percentiles in reading ranged from the 18th percentile in grade 11 to the 26th percentile in grade 2. (Table 11 and Figure 2)

In mathematics, the total summary gains ranged from -0.5 NCE in grade 8 to 3.2 NCEs in grade 7. The total summary

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[8]These 15 states are Alabama, California, Colorado, Florida, Idaho, Maine, Mississippi, Nevada, New Jersey, New Mexico, Oklahoma, Pennsylvania, South Carolina, South Dakota, and Texas.

pretest percentiles in mathematics ranged from the 30th percentile in grade 9 to the 41st percentile in grade 2. (Table 12 and Figure 3)

Fall-Spring Test Results. Thirteen states reported achievement results based on a fall-spring test cycle.[9] In these states there were 9,044 participants tested in reading and 7,822 tested in mathematics. (Figure 1) For these states, positive NCE gain scores were experienced in reading and mathematics in all grades but grade 12 in reading. The total summary gains in reading ranged from -0.6 NCE in grade 12 to 8.5 NCEs in grade 3. The total summary pretest percentiles in reading ranged from the 11th percentile in grade 11 to the 20th percentile in grades 2, 4, and 6. (Table 13 and Figure 4)

In mathematics, the total summary gains ranged from 3.2 NCEs in grade 12 to 11.8 NCEs in grade 2. The total summary pretest percentiles in mathematics ranged from the 16th percentile in grade 11 to the 29th percentile in grades 6 and 8. (Table 14 and Figure 5)

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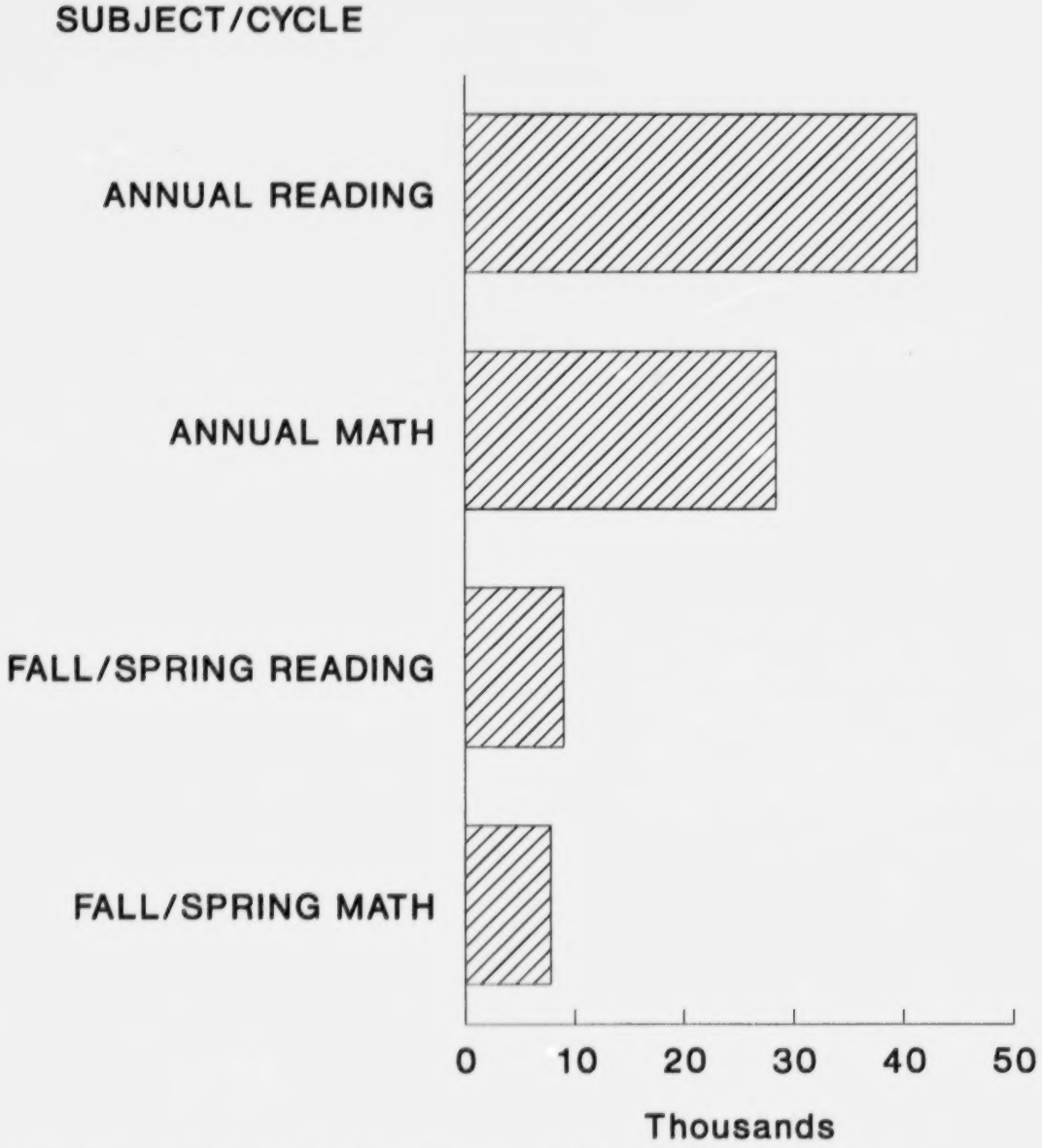
[9]These 13 states are Alabama, Arkansas, California, Colorado, Idaho, Maine, Mississippi, Nevada, New Jersey, New Mexico, Oklahoma, Pennsylvania, and Tennessee.

FIGURE 1

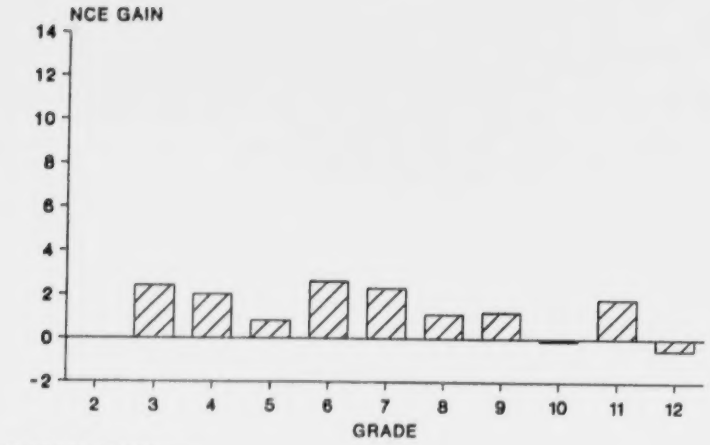
MIGRANT EDUCATION
NUMBER TESTED IN READING AND MATHEMATICS
NORM REFERENCED TESTING BY CYCLE 1986-87



15 STATES TESTED ON AN ANNUAL CYCLE
13 STATES TESTED ON A FALL/SPRING CYCLE

FIGURE 2

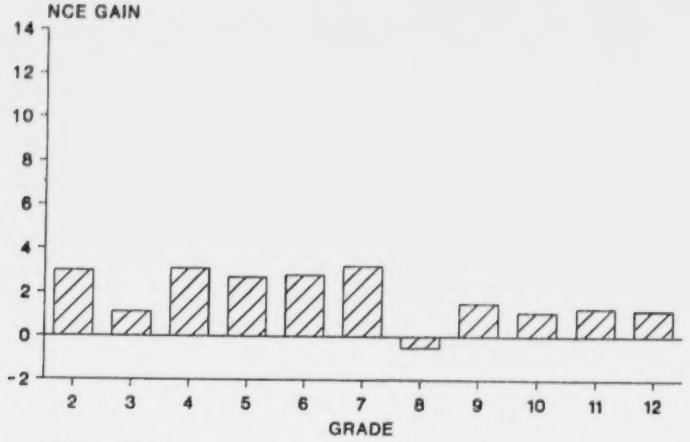
MIGRANT EDUCATION
ANNUAL READING NCE GAINS
1986-87



15 STATES REPORTING

FIGURE 3

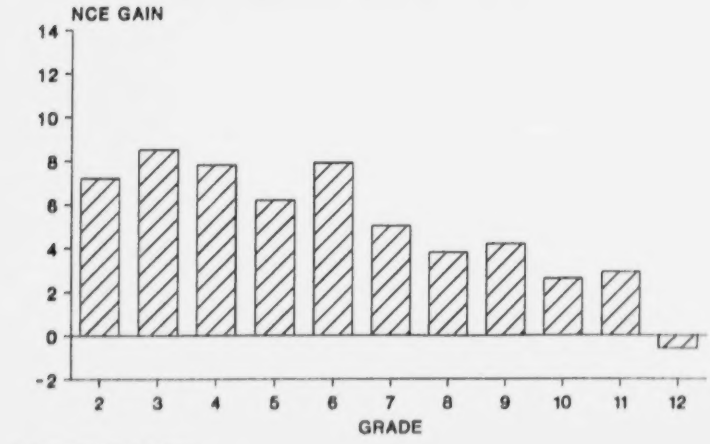
MIGRANT EDUCATION
ANNUAL MATHEMATICS NCE GAINS
1986-87



15 STATES REPORTING

FIGURE 4

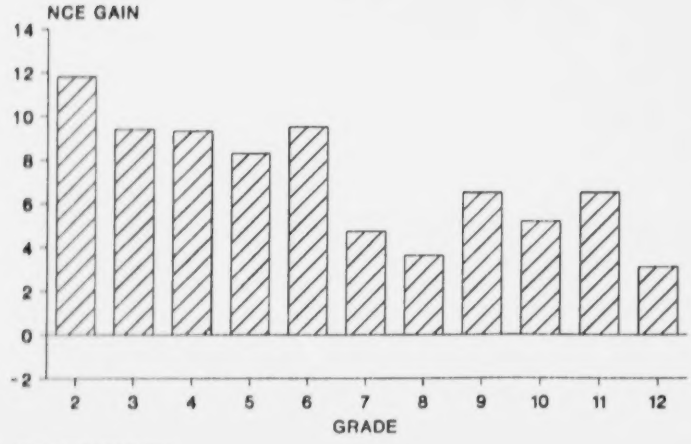
MIGRANT EDUCATION
FALL/SPRING READING NCE GAINS
1986-87



13 STATES REPORTING

FIGURE 5

MIGRANT EDUCATION
FALL/SPRING MATHEMATICS NCE GAINS
1986-87



13 STATES REPORTING

Table 11

Reading Achievement Results for Selected States
Annual Test Cycle by Grade--1986-87
Chapter 1 Migrant Education Program[a/]

Grade	Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
2	4,426	36.7	26	36.7	26	0.0
3	5,450	34.2	22	36.6	26	2.4
4	5,707	34.6	23	36.5	26	1.9
5	5,338	34.9	23	35.7	24	0.8
6	5,446	33.8	22	36.5	26	2.7
7	4,596	33.4	21	35.7	24	2.3
8	4,109	34.5	23	35.6	24	1.1
9	2,354	33.4	21	34.6	23	1.2
10	1,759	32.8	20	32.7	20	-0.1
11	1,224	31.0	18	32.8	20	1.8
12	866	32.8	20	32.3	20	-0.5
Total[b/]	41,275					

a/ Fifteen states (Alabama, California, Colorado, Florida, Idaho, Maine, Mississippi, Nevada, New Jersey, New Mexico, Oklahoma, Pennsylvania, South Carolina, South Dakota, and Texas) provided achievement information by grade using a pretest/posttest norm referenced model.

b/ The sum of the number tested in mathematics on Tables 12 and 14 is not the same as the total number tested in mathematics using norm referenced testing on Table 4 for three reasons. First, the numbers on Table 4 represent achievement results from a variety of test scores, not just pretest/posttest NCE scores, as shown on Tables 12 and 14. Second, Tables 12 and 14 include information for participants in grades 2 through 12 only, while Table 4 also includes information for kindergarten and grade 1. Third, the Washington SEA requested that the NCE scores not be reported since the number tested was not representative of participants receiving migrant education services.

Table 12

Mathematics Achievement Results for Selected States
Annual Test Cycle by Grade--1986-87
Chapter 1 Migrant Education Program[a/]

Grade	Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
2	3,147	45.2	41	48.3	46	3.1
3	3,943	44.3	39	45.3	41	1.0
4	4,261	41.0	33	44.1	39	3.1
5	3,940	42.6	36	45.3	41	2.7
6	4,002	42.1	35	44.8	40	2.7
7	3,049	41.0	33	44.2	39	3.2
8	2,607	43.2	37	42.7	36	-0.5
9	1,304	39.4	30	40.9	33	1.5
10	1,017	40.7	33	41.8	34	1.1
11	720	40.1	32	41.4	34	1.3
12	460	39.7	31	40.9	33	1.2
Total[b/]	28,450					

a/ Fifteen states (Alabama, California, Colorado, Florida, Idaho, Maine, Mississippi, Nevada, New Jersey, New Mexico, Oklahoma, Pennsylvania, South Carolina, South Dakota, and Texas) provided achievement information by grade using a pretest/posttest norm referenced model.

b/ The sum of the number tested in mathematics on Tables 12 and 14 is not the same as the total number tested in mathematics using norm referenced testing on Table 4 for three reasons. First, the numbers on Table 4 represent achievement results from a variety of test scores, not just pretest/posttest NCE scores, as shown on Tables 12 and 14. Second, Tables 12 and 14 include information for participants in grades 2 through 12 only, while Table 4 also includes information for kindergarten and grade 1. Third, the Washington SEA requested that the NCE scores not be reported since the number tested was not representative of participants receiving migrant education services.

Table 13

Reading Achievement Results for Selected States
Fall-Spring Test Cycle by Grade--1986-87
Chapter 1 Migrant Education Program[a/]

Grade	Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
2	1,358	32.6	20	39.8	31	7.2
3	1,291	30.4	17	38.9	29	8.5
4	1,359	32.5	20	40.3	32	7.8
5	1,408	31.8	19	37.9	28	6.1
6	1,132	32.8	20	40.7	33	7.9
7	648	31.7	19	36.6	26	4.9
8	575	31.7	19	35.4	24	3.7
9	631	26.4	13	30.6	17	4.2
10	346	27.3	14	29.9	17	2.6
11	201	24.9	11	27.8	14	2.9
12	95	25.3	12	24.7	11	-0.6
Total[b/]	9,044					

a/ Thirteen states (Alabama, Arkansas, California, Colorado, Idaho, Maine, Mississippi, Nevada, New Jersey, New Mexico, Oklahoma, Pennsylvania, and Tennessee) provided achievement information by grade using a pretest/posttest norm referenced model.

b/ The sum of the number tested in reading on Tables 11 and 13 is not the same as the total number tested in reading using norm referenced testing on Table 3 for three reasons. First, the numbers on Table 3 represent achievement results from a variety of test scores, not just pretest/posttest NCE scores, as shown on Tables 11 and 13. Second, Tables 11 and 13 include information for participants in grades 2 through 12 only, while Table 3 also includes information for kindergarten and grade 1. Third, the Washington SEA requested that the NCE scores not be reported since the number tested was not representative of participants receiving migrant education services.

Table 14

Mathematics Achievement Results for Selected States
Fall-Spring Test Cycle by Grade--1986-87
Chapter 1 Migrant Education Program[a/]

Grade	Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
2	1,150	37.4	27	49.2	48	11.8
3	1,089	36.2	25	45.6	41	9.4
4	1,179	37.8	28	47.1	44	9.3
5	1,261	37.8	28	46.1	42	8.3
6	972	38.4	29	47.9	46	9.5
7	599	37.0	26	41.7	34	4.7
8	493	38.9	29	42.5	36	3.6
9	577	30.9	18	37.5	27	6.6
10	285	32.2	19	37.4	27	5.2
11	154	29.5	16	36.0	25	6.5
12	63	30.4	17	33.6	21	3.2
Total[b/]	7,822					

a/ Thirteen states (Alabama, Arkansas, California, Colorado, Idaho, Maine, Mississippi, Nevada, New Jersey, New Mexico, Oklahoma, Pennsylvania, and Tennessee) provided achievement information by grade using a pretest/posttest norm referenced model.

b/ The sum of the number tested in mathematics on Tables 12 and 14 is not the same as the total number tested in mathematics using norm referenced testing on Table 4 for three reasons. First, the numbers on Table 4 represent achievement results from a variety of test scores, not just pretest/posttest NCE scores, as shown on Tables 12 and 14. Second, Tables 12 and 14 include information for participants in grades 2 through 12 only, while Table 4 also includes information for kindergarten and grade 1. Third, the Washington SEA requested that the NCE scores not be reported since the number tested was not representative of participants receiving migrant education services.

Organization

The remainder of this volume provides state-by-state descriptions of the types and results of the achievement information reported by the states. In Appendix A, the methodology used to review the 1986-87 State Performance Reports submitted by the states is presented. Appendix B presents state-level tabular displays of achievement information, by grade, for those states reporting regular term achievement results, expressed in normal curve equivalent scores, using a pretest/posttest norm referenced model.

STATE-BY-STATE DESCRIPTIONS

ALABAMA

During the regular term, the Alabama migrant education projects provided services to 2,275 students in pre-kindergarten through grade 12. Instructional services were provided in various subjects including English to students of limited English background, reading, language arts, mathematics, vocational/career education, and sewing. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; pupil services; and media services. During the summer term, services were provided to 444 students in pre-kindergarten through grade 12. Summer term participants received most of the same instructional services as regular term participants. However, instead of sewing summer preschool participants received instruction. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; and physical education.

Alabama provided pre- and post-test achievement data for the regular term for reading and mathematics. Data were reported in NCEs for fall-to-spring and annual testing cycles. Alabama uses a norm-referenced test, the SAT (Stanford Achievement Test).

Table 15 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on a fall-to-spring test cycle. Only kindergarteners were tested in reading, the gain was -14.7 NCEs. In mathematics, NCE gains ranged from 8.8 (grade 1) to 1.6 (grade 2).

Table 16 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. For reading, NCE gains ranged from 3.9 (grade 8) to -9.1 (grade 1). For mathematics, gains ranged from 3.0 NCEs (grade 9) to -10.0 NCEs (grade 3).

Program outcomes for the summer term were measured on the basis of skills mastered tests. However, the data were not aggregated.

Table 15

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

Alabama

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	15	72.8	58.1	-14.7
1	--	--	--	--
2	--	--	--	--
3	--	--	--	--
4	--	--	--	--
5	--	--	--	--
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	15			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	5	15.4	24.2	8.8
2	10	29.1	30.7	1.6
3	3	25.3	28.3	3.0
4	5	28.2	30.7	2.5
5	5	26.3	28.2	1.9
6	6	29.9	32.3	2.4
7	4	25.3	29.1	3.8
8	7	28.2	29.9	1.7
9	3	25.3	27.2	1.9
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	48			

Table 16

Chapter 1 Migrant Education Achievement Results for Students Tested on an Annual Schedule, by Subject Area, 1986-87

Alabama

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	26	55.9	46.8	-9.1
2	49	49.8	41.0	-8.8
3	50	49.0	47.7	-1.3
4	58	46.2	46.0	-0.2
5	60	42.6	43.5	0.9
6	53	48.2	47.2	-1.0
7	88	36.7	38.3	1.6
8	47	37.6	41.5	3.9
9	21	32.8	34.2	1.4
10	27	39.1	37.0	-2.1
11	16	33.3	32.3	-1.0
12	10	24.4	26.6	2.2
Total	505			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	26	63.5	56.4	-7.1
2	103	51.0	52.0	1.0
3	124	59.3	49.3	-10.0
4	125	45.6	46.3	0.7
5	143	49.5	52.0	2.5
6	128	48.4	48.1	-0.3
7	81	44.6	40.6	-4.0
8	41	45.4	43.1	-2.3
9	29	39.3	42.3	3.0
10	30	39.6	41.8	2.2
11	16	33.9	35.2	1.3
12	9	38.3	33.4	-4.9
Total	855			

ALASKA

The migrant education projects in Alaska provided services to 4,541 regular term students in pre-kindergarten through grade 12. Students received services in reading, language arts, mathematics, vocational/career education, and computer instruction. Tutorial services were also provided. Supporting services included attendance, social work, and guidance; health; nutrition; pupil transportation; safety; first aid; nutritional fitness; and study habits. Regular term participants were also counseled in alcohol and substance abuse prevention. During the summer term, services were provided to 216 students in pre-kindergarten through 12th grade. With the exception of vocational/career education, summer term participants received the same instructional services as those received by participants in the regular term. Summer term participants also received tutorial services. Attendance, social work, and guidance were provided during the summer.

During the regular term most districts used norm-referenced testing. One district used criterion-referenced testing. Alaska reported number tested and NCEs for reading, mathematics, and language arts on an annual testing cycle. Some districts used a fall-to-spring testing cycle, however, these data were not reported.

Table 17 presents gain NCEs as well as the number tested, by grade and subject area. For reading, NCE gains ranged from 2.2 (grade 12) to -3.5 (grade 4). For mathematics, gains ranged from 1.7 NCEs (grade 12) to -4.9 NCEs (grade 3). Language arts gains ranged from 2.9 NCEs (grade 11) to -7.6 NCEs (grade 2).

While providing this achievement information, the state raised concerns about its quality. Noted issues include (a) this was the first year that achievement data was requested of all migrant instructional programs in the state, (b) these data were often based on very small numbers of students tested, (c) personnel reporting these data from the school districts were often aides rather than professional staff, and (d) the assessment data were not reported to the department in a consistent format.

Achievement information was not provided for the summer term. However, program outcomes for the summer were based on locally-developed activity logs and self concept skills tests. Measuring program outcomes for the summer was based on teacher-judgement tests. There was no statewide assessment for measuring summer term outcomes.

Table 17

NCE Gain Scores for Students Tested on an Annual Schedule, by Subject Area, 1986-87

Alaska

Reading

Grade	Number Tested	NCE Gain
1	--	--
2	151	-2.2
3	194	-1.1
4	184	-3.5
5	148	-2.6
6	154	0.9
7	192	-0.6
8	148	-0.9
9	142	1.2
10	113	-0.2
11	139	-1.1
12	115	2.2
Total	1,680	

Mathematics

Grade	Number Tested	NCE Gain
1	--	--
2	142	-1.6
3	188	-4.9
4	170	-3.7
5	144	-1.1
6	131	1.0
7	214	-2.1
8	163	0.3
9	133	-0.2
10	122	-1.8
11	144	-1.0
12	131	1.7
Total	1,682	

Table 17 (continued)

Language Arts

Grade	Number Tested	NCE Gain
1	--	--
2	57	-7.6
3	106	2.8
4	94	-2.2
5	85	1.2
6	80	2.2
7	116	2.7
8	91	1.3
9	64	1.6
10	46	1.3
11	46	2.9
12	40	2.3
Total	825	

ARIZONA

The state's migrant education projects served 11,439 regular term students in pre-kindergarten through grade 12. Instruction was provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Preschool, GED/HEP, handicapped, and gifted students also received instruction. Secondary tutorial services were also provided. Supporting services were provided in the areas of attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. Services were provided to 1,476 summer term students in pre-kindergarten through grade 12. Summer term participants (including preschool and secondary tutorial) received instruction in the same subject areas as regular term students. Summer term supporting services were the same as regular term supporting services.

Arizona provided a statewide summary of achievement results for migrant students in reading, language arts, and mathematics for the regular term. A point-in-time, norm-referenced model was used. The following tests were used: Iowa Test of Basic Skills (grades 1-8), Stanford Achievement Test (grade 9), and Stanford Test of Academic Skills (grades 10-12). Testing took place in April 1987.

Table 18 provides the number tested and mean grade equivalents, by subject. In all subjects and in each grade, except grade 2 language arts, students performed below their grade levels. This is especially the case at the secondary level (9-12).

During the summer term, districts developed their own broad objectives. For example, in some districts, students were required to read a set number of books or write reports. Projects are completed to the satisfaction of the teacher. No summer outcome measures were aggregated statewide.

Table 18

Mean Grade Equivalent Scores, April 1987

Arizona

Grade	Reading		Language Arts		Mathematics	
	Number Tested	Mean Grade Equivalent	Number Tested	Mean Grade Equivalent	Number Tested	Mean Grade Equivalent
1	689	1.4	668	1.6	652	1.6
2	714	2.2	708	2.7	702	2.6
3	789	3.1	783	3.5	786	3.2
4	806	4.0	805	4.4	802	4.3
5	761	4.8	772	5.1	759	5.0
6	742	5.7	741	5.9	735	6.0
7	700	6.5	698	6.9	700	7.0
8	671	7.4	661	7.8	662	7.9
9	477	7.5	481	7.6	472	8.6
10	422	7.6	420	7.8	418	8.7
11	350	8.0	350	8.5	349	9.1
12	285	9.0	283	9.0	298	9.4
Total	7,406		7,370		7,335	

ARKANSAS

Migrant education projects in this state provided services to 6,696 regular term students in kindergarten through grade 12. Services were provided in English to students of limited English background, reading, mathematics, vocational/career education, and health. As part of the health program, dental hygiene kits were given as needed. Supporting services included attendance, social work, and guidance; health; dental; pupil transportation; clothing; school supplies; and personal supplies. Summer term services were provided to 17 students in grades 1-5. The only instructional service provided was reading. There were no supporting services.

Arkansas provided pre- and post-test achievement data for reading and mathematics. Data were reported in NCEs for the fall-to-spring testing cycle. Achievement gains were based on pre- and post-testing performance on the Individualized Criterion Referenced Test (ICRT) Form A.

Table 19 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on a fall-to-spring test cycle. Gains ranged from 11.0 NCEs (grade 2 and grade 3) to 3.0 NCEs (grade 8) in reading, and 16.0 NCEs (grade 2) to -2.0 NCEs (grade 9) in mathematics.

In addition, the Individualized Criterion Referenced Test (ICRT) management system was used to evaluate the effectiveness of the tutorial program for migrant participants who move frequently and thus are not always available for a pre- and post-test schedule. This system, which counts the number of skills gained for the time tutored, had not been introduced in all project schools for the 1986-87 school year. Table 20 shows, by grade level, the number of children evaluated, the average number of weeks tutored, and the average number of skills gained in reading and mathematics. In reading and mathematics, the highest average number of skills gained was 14 (grade 2).

Beginning in 1987-88 Arkansas will use subjective measures to determine program outcomes for the summer term.

Table 19

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

Arkansas

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	250	29.0	40.0	11.0
3	278	26.0	37.0	11.0
4	268	33.0	40.0	7.0
5	229	29.0	35.0	6.0
6	169	35.0	41.0	6.0
7	93	29.0	35.0	6.0
8	57	32.0	35.0	3.0
9	15	38.0	43.0	5.0
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	1,359			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	166	46.0	62.0	16.0
3	202	42.0	52.0	10.0
4	208	41.0	50.0	9.0
5	170	39.0	44.0	5.0
6	117	39.0	46.0	7.0
7	75	38.0	47.0	9.0
8	54	45.0	49.0	4.0
9	16	43.0	41.0	-2.0
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	1,008			

Table 20

Skills Gained, 1986-87 School Year

Arkansas

	Reading			Mathematics		
Grade	Number Eval.	Average Number Weeks Tutored	Average Number Skills Gained	Number Eval.	Average Number Weeks Tutored	Average Number Skills Gained
2	24	18	14	18	17	14
3	23	15	9	26	15	10
4	17	16	7	14	17	9
5	9	20	8	15	15	9
6	11	15	8	14	14	8
7	15	15	5	11	15	9
8	2	14	13	3	14	9
Total	101			101		

CALIFORNIA

The California migrant education projects provided services to 102,337 regular term students and 49,981 summer term students in pre-kindergarten through grade 12. For both terms, participants received services in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Other instructional services were also provided, but were not specified. Supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation.

California provided pre- and post-test achievement data for reading and mathematics for the regular term. Data were reported in NCEs for the fall-to-spring and annual testing cycles. Achievement data was reported separately for LEP (Limited English Proficient) and FEP/EO (Fluent English Proficient/English Only). However, in this report LEP and FEP/EO achievement data were combined.

Table 21 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on a fall-to-spring test cycle. For reading, gains ranged from 10.5 NCEs (grade 6) to -1.6 NCEs (grade 12). In mathematics, NCE gains ranged from 13.0 (grade 2) to 2.6 (grade 12).

Table 22 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. For reading, gains ranged from 3.7 NCEs (grade 6) to -2.9 NCEs (grade 12). Mathematics gains ranged from 2.9 NCEs (grades 5, 6, and 7) to -0.4 NCEs (grade 3).

For summer term participants, teacher-made tests were used by some districts. However, the data collected from these tests were not aggregated. California is preparing to test summer term students on a statewide basis. Pre- and post-testing will be used to determine if students who attended summer school performed better than those who did not attend summer school. California should be ready to test summer term students by the summer of 1989.

Table 21

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

California

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	705	28.4	35.5	7.1
3	640	28.9	37.4	8.5
4	763	30.9	39.3	8.4
5	848	31.3	38.4	7.1
6	670	32.2	42.7	10.5
7	343	31.8	35.7	3.9
8	357	29.6	35.0	5.4
9	528	25.4	29.5	4.1
10	288	26.7	29.2	2.5
11	159	23.8	26.0	2.2
12	75	23.7	22.1	-1.6
Total	5,376			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	725	33.8	46.8	13.0
3	632	33.7	43.5	9.8
4	744	36.9	46.9	10.0
5	844	38.1	47.3	9.2
6	642	38.2	49.3	11.1
7	347	36.9	40.8	3.9
8	338	37.6	41.1	3.5
9	494	30.5	37.3	6.8
10	229	32.5	38.1	5.6
11	124	29.7	37.1	7.4
12	43	31.9	34.5	2.6
Total	5,162			

Table 22

Chapter 1 Migrant Education Achievement Results for Students Tested on an Annual Schedule, by Subject Area, 1986-87

California

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	1,591	31.9	33.5	1.6
3	1,712	30.5	33.5	3.0
4	2,036	32.0	34.5	2.5
5	1,957	33.1	34.3	1.2
6	1,929	32.4	36.1	3.7
7	1,370	33.5	35.6	2.1
8	1,188	33.1	34.0	0.9
9	518	29.6	28.7	-0.9
10	416	29.3	29.2	-0.1
11	287	28.1	30.8	2.7
12	158	27.8	24.9	-2.9
Total	13,162			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	1,569	45.9	46.4	0.5
3	1,647	43.5	43.1	-0.4
4	1,933	41.1	43.2	2.1
5	1,896	41.6	44.5	2.9
6	1,901	42.3	45.2	2.9
7	1,307	42.6	45.5	2.9
8	1,113	43.9	43.7	-0.2
9	486	40.2	41.0	0.8
10	428	40.5	40.7	0.2
11	276	41.0	41.6	0.6
12	156	38.7	40.0	1.3
Total	12,712			

COLORADO

Colorado's migrant education projects served 1,992 regular term students and 1,830 summer term students in pre-kindergarten through grade 12. For both terms, instructional services were provided in English to students of limited English background, reading, language arts, mathematics, and bilingual education. In addition, summer term participants received instruction in the following areas: vocational/career education, arts, dance, general educational development, health, music, physical education, science, social studies, and supplemental tutoring to participants who were attempting credit. Tutorial services were provided to secondary students in both the regular term and the summer term. Also, preschool participants received instructional services. Supporting services, provided during both terms, included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; clothing; and pupil services.

Colorado provided pre- and post-test achievement data for reading and mathematics for the regular term. Data were reported in NCEs for the fall-to-spring and annual testing cycles for settled-out students who participated in the regular school year program. Settled-out students were migrant children who resided in a district for a continuous twelve-month period. The tests used were based on the discretion of the program directors. The Individualized Test of Basic Skills (ITBS) and the Comprehensive Test of Basic Skills (CTBS) were two tests that were used.

Table 23 provides pretest, posttest, and gain NCEs, as well as the number tested, by subject area and grade, for participants tested on a fall-to-spring test cycle. Participants tested in reading showed NCE gains ranging from 16.3 (kindergarten) to -0.7 (grade 6). Mathematics gains ranged from 13.4 NCEs (grade 2) to -13.0 NCEs (grade 10).

Table 24 provides pretest, posttest, and gain NCEs, as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. For reading, NCE gains ranged from 6.0 (grade 4) to -5.1 (grade 5). For mathematics, NCE gains ranged from 7.2 (grade 7) to -18.0 (grade 12).

In addition, criterion-referenced tests were used for reading and mathematics during the summer term as well as for active migrant participants during the regular year. Most districts used the Brigance Test. Colorado provided the project number, test used, number of students tested, average number of instruction hours per week, and an average indication of achievement. During the regular term, there were 529 participants tested in reading and 315 tested in mathematics. During the summer term, there were 1,456 participants tested in reading and 1,443 tested in mathematics. The number of objectives mastered could not be aggregated for this report.

Table 23

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

Colorado

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	11	17.8	34.1	16.3
1	30	37.1	41.1	4.0
2	36	38.4	49.1	10.7
3	42	36.1	38.0	1.9
4	33	30.1	40.0	9.9
5	29	31.2	34.9	3.7
6	22	35.4	34.7	-0.7
7	18	29.5	42.6	13.1
8	18	34.3	38.8	4.5
9	9	22.2	28.6	6.4
10	2	47.1	58.6	11.5
11	2	40.1	41.1	1.0
12	3	42.2	45.4	3.2
Total	255			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	7	34.7	31.3	-3.4
1	10	40.2	39.6	-0.6
2	17	34.7	48.1	13.4
3	21	32.6	41.8	9.2
4	11	32.5	36.3	3.8
5	18	34.9	39.3	4.4
6	10	40.4	37.6	-2.8
7	3	24.7	24.1	-0.6
8	3	41.8	47.1	5.3
9	1	48.9	50.5	1.6
10	1	29.0	16.0	-13.0
11	--	--	--	--
12	1	30.7	33.7	3.0
Total	103			

Table 24

Chapter 1 Migrant Education Achievement Results
for Students Tested on an Annual Schedule,
by Subject Area, 1986-87

Colorado

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	15	31.1	34.0	2.9
2	15	39.5	40.8	1.3
3	15	39.8	38.1	-1.7
4	12	32.7	38.7	6.0
5	7	38.9	33.8	-5.1
6	9	39.7	38.7	-1.0
7	9	26.2	28.6	2.4
8	8	25.7	29.3	3.6
9	2	24.7	26.2	1.5
10	7	27.3	29.7	2.4
11	3	32.6	33.5	0.9
12	4	20.5	23.3	2.8
Total	106			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	15	31.2	35.4	4.2
2	15	43.8	47.2	3.4
3	15	42.2	43.4	1.2
4	21	39.3	41.3	2.0
5	8	47.1	48.4	1.3
6	8	52.5	51.9	-0.6
7	8	25.3	32.5	7.2
8	5	32.7	38.5	5.8
9	1	38.2	39.6	1.4
10	5	45.0	42.0	-3.0
11	2	28.6	30.2	1.6
12	3	43.0	25.0	-18.0
Total	106			

CONNECTICUT

Migrant education projects in this state served 4,048 regular term students in pre-kindergarten through grade 12. Instructional services were provided in English to students of limited English background, reading, language arts, mathematics, vocational/career education, and ethnic arts. Regular term high school students also received tutoring. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; and referrals for housing, food, clothing, etc. Six hundred and ninety (690) pre-kindergarten through twelfth grade summer term students were provided services. The instructional and supporting services were the same as those offered during the regular term.

No achievement data were provided for the regular or summer term. Connecticut collects data biennially. Summaries will be submitted with the 1987-88 school year report.

DELAWARE

Delaware's migrant education projects served 345 regular term students in pre-kindergarten through grade 12. Participants received services in English to students of limited English background, reading, language arts, and mathematics. Other instructional services were also provided, but were not specified. Supporting services included attendance, social work, and guidance; dental; nutrition; and pupil transportation. Summer term services were provided to 449 students in pre-kindergarten through grade 12. Instructional services were provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Other instructional services were also provided, but were not specified. Supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation.

During the regular school year, Delaware's migrant education projects supplemented the regular classroom instruction. Participants were instructed in areas of weakness as indicated by their regular classroom teacher. Thus, no separate achievement data specific to the supplementary instruction were available other than skills mastery.

During the six-week summer term, all migrant projects used the norm-referenced Stanford Diagnostic Test. Fifty-eight participants had pre- and post-test scores in reading. Of these 58 participants tested, 28 showed increases, 11 decreased, and 19 showed no change. There were 60 participants who had pre- and posttest scores in mathematics. Of these 60 participants tested, 46 showed increases, 4 showed decreases, and 10 showed no change.

The information provided in the State Performance Report states that, as a whole, there was more success in advancing or maintaining status in mathematics than in reading. For example, in another six-week summer program, it was reported that the grade equivalent growth in reading and mathematics was 0.50 and 0.80, respectively.

DISTRICT OF COLUMBIA

The District of Columbia's migrant education projects served 70 regular term students in kindergarten through grade 11. Students were provided services in reading and mathematics. Other instructional services were also provided, but were not specified. Supporting services included attendance, social work, and guidance; and parent involvement. There were no summer term projects.

No achievement data were provided for the regular term.

FLORIDA

The migrant education projects in Florida provided services to 17,199 regular term students in pre-kindergarten through grade 12. Instruction was provided in English to students of limited English background, reading, language arts, mathematics, vocational/career education, and dropout prevention. Regular term preschool participants also received instructional services. Supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. Services were provided to 280 summer term students in pre-kindergarten through grade 12 (excluding grade 10). Instruction was provided in reading, mathematics, and dropout prevention. Summer term preschool participants also received instructional services. Summer supporting services included health and pupil transportation.

Florida provided pre- and post-test achievement data for reading and mathematics for the regular term. Data were reported in NCEs for an annual testing cycle. The following norm-referenced tests were used: Comprehensive Test of Basic Skills (CTBS), California Achievement Test (CAT), Stanford Achievement Test (SAT), Metropolitan Achievement Test (MAT), Science Research Associates (SRA), and the Iowa Test of Basic Skills (ITBS). All students were given a criterion-referenced literacy assessment.

Table 25 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. NCE gains ranged from 3.2 (grade 7) to -1.3 (grade 2) for reading, and 10.6 (grade 4) to -0.5 (grade 6) for mathematics.

No achievement data were provided for the summer term.

Table 25

Chapter 1 Migrant Education Achievement Results for Students Tested on an Annual Schedule, by Subject Area, 1986-87

Florida

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	389	37.3	36.0	-1.3
3	506	34.0	35.3	1.3
4	434	37.1	36.7	-0.4
5	459	34.6	34.3	-0.3
6	419	31.8	33.4	1.6
7	133	28.4	31.6	3.2
8	72	29.9	31.1	1.2
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	2,412			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	79	37.2	47.2	10.0
3	60	32.1	41.9	9.8
4	76	35.1	45.7	10.6
5	64	36.4	38.4	2.0
6	37	34.7	34.2	-0.5
7	39	32.0	36.1	4.1
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	355			

GEORGIA

Georgia's migrant education projects served 4,522 regular term students and 2,658 summer term students in pre-kindergarten through grade 12. Instruction, for both terms, was provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Other instructional services were also provided, but were not specified. For both terms, supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; outdoor education; and general tutoring.

Table 26 provides the average pre- and post-test NCE scores of migrant students with matched scores on the Iowa Test of Basic Skills (ITBS) and the Tests of Academic Proficiency (TAP). Students were tested on an annual cycle.

Table 26

NCE Gain of Migrant Students
Spring 86 - Spring 87[a/]

Georgia

	Migrant Students Receiving MEP Instruction	Migrant Students Not Receiving MEP Instruction
Mathematics	(N=39)	(N=34)
Pre-test - Spring 86	30.6	44.3
Post-test - Spring 87	35.0	49.4
NCE Gain	4.4	5.1
Reading	(N=39)	(N=37)
Pre-test - Spring 86	26.8	36.5
Post-test - Spring 87	31.6	37.2
NCE Gain	4.8	0.7

a/ These data are not considered to be representative of the migrant population due to the small numbers of students with matched pre- and post-test scores. They are also not considered representative because students with matched pre- and post-test scores are generally less mobile than the typical migrant student.

Table 27 provides the number tested and the percentile of migrant students receiving services, by grade and instructional area. For reading, language, and mathematics, the highest average percentiles were in grade 2 (30, 47, and 52, respectively). Although the data are not provided in this report, Georgia compared students served by the migrant education program to state averages and students not receiving MEP services.

Table 27

Percentile of Migrant Students, by Grade and Instructional Area, Spring 1987

Georgia

Subtest	2nd Grade MEP Serv Percentile (137)[a]	4th Grade MEP Serv Percentile (116)	7th Grade MEP Serv Percentile (97)	9th Grade MEP Serv Percentile (31)
Listening	45			
Word Analysis	44			
Vocabulary	36	26	18	
Reading	30	28	23	28
L1 Spelling	39	29	27	
L2 Capitalization	50	38	30	
L3 Punctuation	55	39	27	
L4 Usage	45	31	26	
Language Total	47	32	26	13
W1 Visual Material	38	33	27	
W2 References	40	32	28	
Work-Study Total	40	33	27	11
M1 Concepts	49	44	26	
M2 Problems	47	30	22	
M3 Computation	61	40	31	
Math Total	52	38	25	28
Science	39	48	35	30
Social Studies	44	41	26	22
Composite	40	30	21	28

a/ The numbers in parentheses indicate the number tested.

IDAHO

During the regular term, Idaho's migrant education projects served 1,750 students in pre-kindergarten through grade 12. Participants received instructional services in English to students of limited English background, reading, language arts, mathematics, vocational/career education, social studies, speech, science, computer, health, art, music, and physical education. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; parent conferences; completion of school forms; scheduling; translation. During the summer term, services were provided to 1,869 students in pre-kindergarten through grade 12. The same instructional and supporting services provided in the regular term were provided in the summer term.

Based on norm-referenced tests, Idaho provided pre- and post-test achievement data for reading, mathematics, language arts, and English as a second language for the regular term. Data were reported in NCEs for the fall-to-spring and annual testing cycles. Each district chose what test to use. The most popular tests were the following: California Achievement Test (CAT), Stanford Achievement Test (SAT), Woodcock, Keymath, Metropolitan Achievement Test (MAT) and the Science Research Associates (SRA). For ESL most districts used the Language Assessment Skills Test (LAST).

Table 28 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on a fall-to-spring test cycle. In reading, NCE gains ranged from 16.0 (grade 9) to -28.8 (grade 8). In mathematics, NCE gains ranged from 14.6 (grade 5) to 0.3 (grade 4). In language arts, NCE gains ranged from 10.7 (grade 4) to 1.5 (grade 5). In English as a second language, NCE gains ranged from 32.3 (grade 11) to 9.3 (grade 6).

Table 29 provides pretest, posttest, and gain NCEs, as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. For reading, the range of NCE gain scores was 3.3 (grade 3) to -11.0 (grade 8). In mathematics, the gains ranged from 8.3 NCEs (grade 2) to -5.0 NCEs (grade 6). For language arts, the NCE gain scores ranged from 12.1 (grade 2) to -5.9 (grade 5). In English as a second language, NCE gains ranged from 22.5 (grade 4) to -1.5 (grade 5).

There were no statewide achievement data provided for the summer term. However, criterion-referenced tests measuring skills mastered may be given if the district chooses. There was also a summer reading program, but the results have not been aggregated.

Table 28

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

Idaho

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	52	31.1	36.7	5.6
3	50	34.8	46.4	11.6
4	32	30.8	36.5	5.7
5	33	27.7	31.5	3.8
6	27	29.7	35.2	5.5
7	17	20.7	26.2	5.5
8	12	64.1	35.3	-28.8
9	4	35.8	51.8	16.0
10	1	50.0	48.0	-2.0
11	4	32.7	45.0	12.3
12	--	--	--	--
Total	232			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	20	38.7	40.7	2.0
3	39	37.2	43.1	5.9
4	23	43.6	43.9	0.3
5	28	25.7	40.3	14.6
6	24	33.5	44.1	10.6
7	11	36.8	37.5	0.7
8	8	38.7	49.4	10.7
9	5	23.4	29.0	5.6
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	158			

Table 28 (continued)

Language Arts

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	6	22.3	27.2	4.8
3	13	37.2	42.4	5.2
4	3	34.3	45.0	10.7
5	6	21.3	22.8	1.5
6	3	37.0	43.0	6.0
7	11	27.9	35.4	7.5
8	5	41.4	45.5	4.0
9	1	38.0	44.0	6.0
10	1	56.0	64.0	8.0
11	--	--	--	--
12	--	--	--	--
Total	49			

English as a Second Language

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	34	61.4	74.1	12.8
3	35	57.8	69.0	11.2
4	21	54.1	69.3	15.2
5	31	69.2	80.1	10.9
6	27	50.3	59.6	9.3
7	10	52.0	65.7	13.7
8	7	60.9	72.7	11.9
9	9	60.8	78.2	17.5
10	9	48.9	61.6	12.7
11	4	49.7	82.0	32.3
12	--	--	--	--
Total	187			

Table 29

Chapter 1 Migrant Education Achievement Results
for Students Tested on an Annual Schedule,
by Subject Area, 1986-87

Idaho

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	53	41.9	38.2	-3.7
3	36	34.4	37.7	3.3
4	57	40.2	39.4	-0.8
5	49	45.3	39.0	-6.3
6	26	35.7	33.1	-2.6
7	16	24.1	19.0	-5.1
8	4	51.8	40.8	-11.0
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	241			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	32	41.5	49.8	8.3
3	45	42.6	40.5	-2.1
4	38	43.7	39.6	-4.1
5	38	43.4	41.6	-1.8
6	17	36.9	31.9	-5.0
7	6	17.4	20.7	3.3
8	7	33.3	31.6	-1.7
9	--	--	--	--
10	1	13.0	17.0	4.0
11	--	--	--	--
12	--	--	--	--
Total	184			

Table 29 (continued)

Language Arts

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	11	31.3	43.5	12.1
3	10	23.0	30.7	7.7
4	11	39.2	34.5	4.7
5	8	36.1	30.3	-5.9
6	9	26.4	35.7	9.2
7	14	47.3	50.7	3.4
8	4	33.3	35.3	2.0
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	67			

English as a Second Language

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	11	32.0	42.9	10.0
3	4	65.0	70.5	5.5
4	4	60.8	83.3	22.5
5	2	19.5	18.0	-1.5
6	--	--	--	--
7	4	54.8	64.0	9.3
8	5	51.7	66.0	14.3
9	2	77.0	79.5	2.5
10	1	61.0	78.0	17.0
11	--	--	--	--
12	--	--	--	--
Total	33			

ILLINOIS

The migrant education projects in Illinois served 757 regular term students and 1,961 summer term students. For both terms, instructional services were provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Other instructional services were also provided, but were not specified. For both terms, supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. Handicapped students and preschoolers also received supporting services during the regular and summer terms.

Statewide achievement information reported the number of participants by subject area and grade level, and the number of participants "not meeting" and "meeting and/or exceeding standards."

Tables 30 and 31 present, for the regular and summer terms, respectively, the number tested and the percentage "not meeting," and "meeting and/or exceeding standards," by subject area and term, for all grades combined. During the regular term, the majority of students met and/or exceeded the standards that were established by the local projects. The percent meeting and/or exceeding the standards ranged from 95 percent in Spanish language arts/reading to 79 percent in English as a second language. During the summer term, the majority of students also met and/or exceeded the established standards. The percent meeting and/or exceeding the standards ranged from 80 percent in Spanish language arts/reading to 71 percent in English language arts/reading.

Illinois also submitted summer term achievement data from a point-in-time longitudinal study where a sample of migrant children were given a norm-referenced standardized achievement test in mathematics, reading, and English as a second language. Children in grades 3, 5, 7, and 9 were considered for testing. However, only those students with sufficient English language proficiency and those functioning no more than one level below the test publisher's recommended level for children of that age were included. The test selected for use was the Stanford Achievement Test (SAT).

While local projects were encouraged to develop their own evaluation procedures including diagnostic assessment, the point-in-time approach ensured that a snapshot of the performance of students participating in the statewide Migrant Education Program could be generated.

Table 32 provides reading subtest mean percentile ranks by grade level. Not all subtests are included in every level of the SAT. Within each grade level tested, students' mean percentile ranks were largely in the bottom half of the second quartile, ranging between the 18th and 40th percentile. For the Word Study Skills subtest, the average scores were higher for the younger students (3rd graders) than for the 5th and 7th grade students. There appears to be a slight upward trend in student scores on the Word Study Skills subtest over the past two years. On the Reading Comprehension subtest over the years 1983-87, 3rd graders generally fared better than those in the other grades. However, student scores were fairly consistent across grades with Reading Comprehension subtest scores averaging at about the 32nd percentile.

Table 30

Achievement Data for the Regular Term
School Year 1986-1987

Illinois

Subject	Number Tested	Percent Not Meeting Standards	Percent Meeting and/or Exceeding Standards
Mathematics	536	13%	87%
English Language Arts/ Reading	630	20%	80%
Spanish Language Arts/ Reading	66	5%	95%
English as a Second Language	221	21%	79%
Total	1,453		

Table 31

Achievement Data for the Summer Term, 1987

Illinois

Subject	Number Tested	Percent Not Meeting Standards	Percent Meeting and/or Exceeding Standards
Mathematics	1,910	25%	75%
English Language Arts/ Reading	1,895	29%	71%
Spanish Language Arts/ Reading	622	20%	80%
English as a Second Language	732	27%	73%
Total	5,159		

Table 32

Mean Percentile Ranks for the Stanford Achievement Test Reading Subtests by Grade Level
1986-87

Illinois

Grade	Year	Word Reading	Word Study Skills	Reading Comprehension
3	1983	32%tile (56)	32%tile (134)	35%tile (134)
	1984	26% (56)	34% (143)	32% (142)
	1985	19% (46)	33% (145)	32% (148)
	1986	24% (19)	39% (144)	40% (144)
	1987	18% (25)	40% (126)	38% (126)
5	1983	--	33%tile (87)	32%tile (92)
	1984	--	27% (103)	26% (103)
	1985	--	28% (89)	36% (90)
	1986	--	27% (101)	34% (101)
	1987	--	32% (117)	34% (117)
7	1983	--	24%tile (44)	29%tile (53)
	1984	--	24% (42)	30% (43)
	1985	--	22% (43)	20% (46)
	1986	--	29% (61)	32% (62)
	1987	--	33% (46)	32% (53)
9	1983	--	--	30%tile (25)
	1984	--	--	36% (21)
	1985	--	--	27% (18)
	1986	--	--	25% (8)
	1987	--	--	29% (13)

Number of students (N) is in parentheses.

INDIANA

Indiana's migrant education projects served 2,569 regular term students in pre-kindergarten through grade 12. Instruction was provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Instructional services were also provided to regular term preschool and gifted participants. Regular term secondary school participants received tutorial services and participated in RIF (Reading is Fundamental). Supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. Indiana's summer term program served 1,317 students in pre-kindergarten through grade 12. Participants received instructional services in reading, English to students of limited English background, language arts, mathematics, and vocational/career education. Summer term participants also participated in RIF. The supporting services provided in the summer term were the same as those provided during the regular term.

Indiana utilized a point-in-time evaluation model. At the beginning of the 1986-87 school year, point-in-time assessment was initiated for participants in grades 2-9 in fall projects. All participants in grades 3, 5, 7, and 9 during the summer term were considered for testing. A norm-referenced test, the Stanford Achievement Test 1982, was used. In order to qualify for both assessments, participants had to meet the following criteria: (1) have sufficient English language proficiency to understand test directions and test items, and (2) perform at no more than one level below the test publisher's recommended level for children of that age and time of testing.

Table 33 provides the results of the point-in-time assessment initiated in 1986 for fall projects, displaying the number tested and the NCE average by grade and subject matter. Average NCEs in total mathematics exceeded those for total reading and reading comprehension. Second graders did particularly well in total mathematics, and fourth graders performed well in reading comprehension and total reading.

Table 34 presents the NCE scores in reading from the summer term point-in-time assessment for the summers of 1984, 1985, 1986 and 1987. The highest NCE scores were reported in the summer of 1984.

Table 35 presents, by grade, the NCE scores in reading comprehension, total reading, and total mathematics from the 1987 summer term point-in-time assessment. The highest NCE scores were reported for total mathematics (grade 5).

Table 33

Point-in-Time Assessment, Fall 1986

Indiana

Grade	Reading Comprehension		Total Reading		Total Mathematics	
	Number Tested	NCE Average	Number Tested	NCE Average	Number Tested	NCE Average
2	32	36.2	37	29.0	36	50.7
3	48	34.9	48	32.6	47	43.5
4	37	38.3	37	36.3	37	45.0
5	45	33.1	45	31.1	45	38.9
6	33	29.8	33	27.7	33	39.4
7	19	26.3	17	31.1	15	40.3
8	14	29.9	16	27.2	16	44.0
9	6	23.3	6	21.3	6	26.1
Total	234		239		235	

Table 34

Point-in-Time Assessment, Summer 1984-1987

Indiana

	NCE Scores - Reading Comprehension						
	Grade 3		Grade 5		Grade 7		
	Number Tested	NCE	Number Tested	NCE	Number Tested	NCE	Total Number Tested
1987	21	30.1	16	33.3	6	21.1	43
1986	28	27.9	18	34.2	10	33.6	56
1985	42	29.9	23	34.8	5	36.8	70
1984	26	30.5	10	39.3	10	43.2	46

Table 35

Point-in-Time Assessment, Summer 1987

Indiana

Grade	Number Tested	NCE Scores - Total Reading
3	22	24.7
5	13	30.8
7	5	23.2
Total	40	

Grade	Number Tested	NCE Scores - Total Mathematics
3	22	36.5
5	15	36.7
7	5	16.9
Total	42	

Grade	Number Tested	NCE Scores - Reading Comprehension
3	21	30.1
5	16	33.3
7	6	21.1
Total	43	

IOWA

The migrant education projects in Iowa provided services to 137 regular term students in pre-kindergarten through grade 12. Instructional services were provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Other instructional services were also provided, but were not specified. Regular term supporting services included the following: attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. There was no summer term program.

For the regular term, participants in migrant education projects in four school districts were tested using norm-referenced achievement tests near the fall and spring norming dates. According to information reported in the State Performance Report, three LEAs provided the evaluation data which could be aggregated for grades 1-12. Fifty-four percent of those students had valid pretest and posttest scores.

Migrant students who were pretested and posttested using the Iowa Test of Basic Skills Language subtest yielded a gain of 3.9 NCEs. The students began at the 25th percentile (35.9 NCEs) and finished at the 32nd percentile (39.8 NCEs).

Another group of these students who were pretested and posttested using the Metropolitan Achievement Test yielded a gain of 20.5 NCEs. The students began at the 8th percentile (19.2 NCEs) and finished at the 32nd percentile (39.7 NCEs).

Eighty percent of the kindergartners from one migrant site were pretested and posttested with the Peabody Picture Vocabulary Test. The results showed an average gain of 1 year 3 months in mental age.

KANSAS

The migrant education projects in Kansas served 4,286 regular term students in pre-kindergarten through grade 12. Instructional services were provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Tutorial services were also provided. Instructional services were provided to preschoolers and special education participants. Supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. The summer term projects provided services to 960 students in pre-kindergarten through grade 12. With the exception of services to special education participants, summer term participants received the same instructional services as regular term participants. Summer supporting services were the same as regular supporting services.

Kansas used a norm-referenced model to evaluate local migrant projects and encouraged the projects to use the Individualized Criterion Referenced Test. The State Performance Report provided information on the number tested and the average gains reported in reading and mathematics for a fall-to-spring testing cycle.

Table 36 presents gain NCEs as well as the number tested, by grade and subject area. For reading, gains ranged from 36.9 NCEs (preschool) to 0.6 NCEs (grade 9). For mathematics, NCE gains ranged from 42.5 (kindergarten) to -4.5 (grade 10).

No achievement information was provided for the summer term. However, beginning in 1987-88 a rating system is being used to measure program outcomes for the summer term. Use of the rating system is up to each teacher. A workshop was held to help develop the rating system.

Table 36

NCE Gain Scores for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

Kansas

Reading

Grade	Number Tested	Average NCE Gain
PS*	18	36.9
K	19	7.7
1	132	26.1
2	83	15.4
3	113	14.3
4	84	7.8
5	62	7.3
6	80	8.7
7	49	4.6
8	49	1.7
9	15	0.6
10	12	7.3
11	8	6.8
12	1	2.0
Total	725	

* Preschool

Mathematics

Grade	Number Tested	Average NCE Gain
PS*	--	--
K	2	42.5
1	39	5.8
2	33	7.4
3	46	0.8
4	36	-0.7
5	20	6.9
6	38	-2.5
7	18	4.6
8	23	4.0
9	2	-3.0
10	2	-4.5
11	2	10.0
12	--	--
Total	261	

* Preschool

KENTUCKY

In Kentucky, migrant education services were provided to 3,486 regular term students in kindergarten through grade 12. Instructional services were provided in reading, language arts, mathematics, and vocational/career education. Other instructional services were also provided, but were not specified. Supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. Services were provided to 531 summer term students in kindergarten through grade 11. Instructional services included reading, language arts, mathematics, vocational/career education, and other non-specified instructional services. The supporting services provided during the regular term were also provided during the summer term.

Beginning with the 1986-87 school year, Kentucky elected to use a point-in-time norm-referenced assessment approach during the regular term. The Kentucky Essential Skills Test Form N was administered between May 4-8, 1987. Students were tested in reading, spelling, language, math, and research, library, and reference.

Table 37 provides the number tested and mean NCE totals by subject area and grade, for participants tested between May 4-8, 1987. Mean NCE totals ranged from 53.6 (grade 3) to 39.2 (grade 9) for reading. In mathematics, the mean NCE totals ranged from 67.0 (grade 2) to 43.6 (grade 12), in language the mean NCE totals ranged from 54.2 (grade 3) to 43.3 (grade 4), and in spelling the mean NCE totals ranged from 53.6 (grade 8) to 45.3 (grade 2). Mean NCE totals for research, library, and reference ranged from 51.0 (grade 6) to 43.5 (grade 10).

No achievement data were provided for the summer term. It was difficult to measure program outcomes during the summer because of the variety of programs that were offered. The programs concentrated more on improving student attitudes than instruction.

Table 37

Chapter 1 Migrant Education Achievement Results
for Students Tested Using a Point-in-Time Assessment Approach,
by Subject Area, May 4-8, 1987

Kentucky

Reading

Grade	Number Tested	NCE Mean Totals
1	188	47.7
2	190	47.2
3	161	53.6
4	202	47.4
5	179	43.8
6	215	51.2
7	188	48.0
8	185	50.2
9	113	39.2
10	75	42.3
11	43	47.4
12	23	42.0
Total	1,762	

Mathematics

Grade	Number Tested	NCE Mean Totals
1	188	60.5
2	190	67.0
3	161	50.9
4	202	52.2
5	179	53.9
6	215	56.5
7	188	50.5
8	185	55.9
9	113	47.2
10	75	52.8
11	43	48.8
12	23	43.6
Total	1,762	

Table 37 (continued)

Language

Grade	Number Tested	NCE Mean Totals
1	--	--
2	190	49.9
3	161	54.2
4	202	43.3
5	179	47.1
6	215	51.3
7	188	52.8
8	185	52.8
9	113	46.0
10	75	51.8
11	43	49.6
12	23	50.7
Total	1,574	

Spelling

Grade	Number Tested	NCE Mean Totals
1	--	--
2	190	45.3
3	161	52.9
4	202	46.7
5	179	49.7
6	215	52.0
7	188	50.7
8	185	53.6
9	113	47.9
10	75	45.6
11	43	52.3
12	23	50.7
Total	1,574	

Table 37 (continued)

Research, Library, Reference

Grade	Number Tested	NCE Mean Totals
1	--	--
2	--	--
3	--	--
4	202	45.3
5	179	46.4
6	215	51.0
7	188	47.2
8	185	47.8
9	113	45.4
10	75	43.5
11	43	44.5
12	23	49.0
Total	1,223	

LOUISIANA

Migrant education projects in this state provided services to 5,854 regular term students in pre-kindergarten through grade 12. Instructional services were provided in English to students of limited English background, reading, language arts, mathematics, computer literacy, science, and social studies. Supporting services included attendance, social work, and guidance; health; dental; and pupil transportation. Services were not provided during the summer term.

Louisiana provided achievement data by test type and parish. The data were not aggregated statewide. Some of the tests used were the Science Research Associates (SRA), California Achievement Test (CAT), and the Comprehensive Test of Basic Skills (CTBS).

MAINE

During the regular term, Maine's migrant education projects served 3,220 students in kindergarten through grade 12. Participants received instructional services in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Regular term instructional services were also provided to gifted and talented participants. Regular term secondary school participants received tutorial services in addition to the services listed above. Supporting services included attendance, social work, and guidance; health; nutrition; and pupil transportation. During the summer term, services were provided to 369 migrant education students in pre-kindergarten through grade 8. Instructional services were provided in English for students of limited English background, reading, language arts, and mathematics. Summer term instructional services were provided to preschool participants. The supporting services that were provided during the regular term were provided during the summer term as well.

In the spring of 1986, migrant teachers were introduced to a norm-referenced testing program for student achievement. The common tests used were the Iowa Test of Basic Skills (ITBS), Stanford Achievement Test (SAT), California Achievement Test (CAT) and Science Research Associates (SRA).

Maine provided pre- and post-test achievement data for reading and mathematics for the regular term. Data were reported in NCEs for the fall-to-spring and annual testing cycles.

Table 38 provides pretest, posttest, and gain NCEs, and the number tested, by subject area and grade, for the fall-to-spring testing cycle. NCE gains for reading ranged from 7.8 (grade 11) to 0.5 (grade 1). For participants tested in mathematics, gains ranged from 9.5 NCEs (grade 4) to -1.6 NCEs (grade 2).

Table 39 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for the annual testing cycle. NCE gains for reading ranged from 3.4 (grade 7) to -2.5 (grade 2). For participants tested in mathematics, gains ranged from 4.3 NCEs (grade 5) to -2.9 NCEs (grade 8).

Maine is developing a method of measuring program outcomes for the summer term.

Table 38

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

Maine

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	55	50.7	51.2	0.5
2	72	47.6	49.9	2.3
3	59	48.5	50.9	2.4
4	49	47.5	52.7	5.2
5	57	46.1	47.5	1.4
6	40	42.3	43.2	0.9
7	56	46.7	51.2	4.5
8	39	46.2	48.9	2.7
9	17	35.9	36.9	1.0
10	13	39.4	43.0	3.6
11	8	47.7	55.5	7.8
12	1	32.0	35.0	3.0
Total	466			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	45	44.5	43.4	-1.1
2	58	50.7	49.1	-1.6
3	49	49.4	51.0	1.6
4	42	47.4	56.9	9.5
5	46	46.4	48.4	1.9
6	30	47.6	51.5	3.9
7	51	44.7	46.4	1.7
8	29	46.6	46.7	0.1
9	15	30.4	37.8	7.4
10	9	43.6	47.4	3.8
11	2	30.1	30.6	0.5
12	1	18.0	18.0	0.0
Total	377			

Table 39

Chapter 1 Migrant Education Achievement Results for Students Tested on an Annual Schedule, by Subject Area, 1986-87

Maine

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	26	56.5	54.0	-2.5
3	52	47.6	49.4	1.8
4	37	51.3	49.5	-1.8
5	31	47.1	48.0	0.9
6	43	46.0	47.6	1.6
7	46	47.4	50.8	3.4
8	23	54.9	52.6	-2.3
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	258			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	26	58.0	58.9	0.9
3	44	46.8	49.0	2.2
4	33	48.0	50.7	2.7
5	34	43.7	48.0	4.3
6	46	45.1	44.0	-1.1
7	39	41.0	44.7	3.7
8	23	52.9	50.0	-2.9
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	245			

MARYLAND

Migrant education projects in Maryland provided services to 30 regular term students in kindergarten through grade 8. Instructional services were provided in English to students of limited English background, reading, language arts, and mathematics. Secondary students also received tutorial and GED services. Supporting services included attendance, social work, and guidance; nutrition; and pupil transportation. Services were provided to 439 summer term students in pre-kindergarten through grade 11. The same instructional services provided in the regular term were provided in the summer term; additionally, preschoolers received services. Summer supporting services included attendance, social work, and guidance; health; nutrition; and pupil transportation.

During the summer term, Maryland used The 3 R's Test Classroom Edition, a basic skills test. The pre- and post-tests were administered outside of the norm testing period, but gave a diagnostic assessment of student academic capabilities based on a limited skill set.

Table 40 provides average student percentiles, related NCEs (pre and post), mean composite scores (pre and post), and gains, as well as the number tested, by grade for the summer term. Pretest percentiles ranged from 39 (grade 7) to 9 (grade 8). Posttest percentiles ranged from 54 (grade 2) to 6 (grade 8). Students were tested in reading, language arts, and mathematics.

No achievement information was provided for the regular term.

Table 40

3 R's Test Results in NCEs for the
Summer Term, by Grade
Reading, Mathematics, and Language

Maryland

Grade	Number of Students	Pretest			Posttest			NCE Difference
		Mean Composite Score	NCEs	Percentile	Mean Composite Score	NCEs	Percentile	
1	30	21.2	NA	25	24.1	NA	41	NA
2	23	22.1	NA	29	26.0	NA	54	NA
3	23	24.2	34	23	31.3	48	47	14.0
4	21	18.3	23	10	20.2	27	14	4.0
5	16	20.2	28	15	26.3	41	33	13.0
6	15	21.6	31	18	26.7	40	32	9.0
7	3	27.6	44	39	27.9	44	39	0.0
8	3	17.3	22	9	15.7	17	6	-5.0
Total	134							

MASSACHUSETTS

The migrant education projects in Massachusetts provided services to 3,170 regular term students and 3,807 summer term students in pre-kindergarten through grade 12. Participants in both terms received services in English to students of limited English background, reading, mathematics, and vocational/career education. Tutorial services were also provided. Preschool participants received instructional services. Supporting services for both terms included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation.

Massachusetts provided achievement data, by project, for the regular and summer terms, on the number of skills mastered by migrant participants who received instructional services. Mastery was determined by pre- and post- criterion-referenced testing in reading and mathematics skill areas. The data were presented by project model, subject area, number of students, total hours of instruction, total skills gained, average number of hours of instruction, average number of skills mastered, and average hours of instruction per skill gained.

Tables 41 and 42 show the number tested and average skills mastered, by subject, for the regular term and the summer term, respectively. During the regular term, the average skills mastered ranged from 12.4 (reading, tutorial projects) to 1.80 (mathematics, Saturday projects). For the summer term, the average number of skills mastered ranged from 7.98 (early childhood) to 4.02 (mathematics).

Table 41

Number Tested Using Criterion-Referenced Measures in the Regular Term, 1986-87

Massachusetts

Subject	Saturday Projects		Tutorial Projects	
	Number Tested	Average Skills Mastered	Number Tested	Average Skills Mastered
Reading	2,700	2.14	20	12.4
Mathematics	2,731	1.80	--	--
Early Childhood	418	6.44	--	--
Language	2,735	--	--	--
Life Career	2,824	--	--	--
Total	11,408		20	

Table 42

Number Tested Using Criterion-Referenced Measures in the Summer Term, 1987

Massachusetts

Subject	Number Tested	Average Skills Mastered
Reading	3,145	4.53
Mathematics	3,261	4.02
Early Childhood	561	7.98
Language	3,268	--
Life Career	3,174	--
Total	13,409	

MICHIGAN

Michigan's migrant education projects provided services to 6,226 regular term students and 6,522 summer term students in pre-kindergarten through grade 12. For both terms, instructional services were provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Secondary students received tutorial services for both terms. Preschool, gifted, and handicapped participants in both terms received instructional services. In addition, regular term GED/HEP participants received instructional services. Supporting services during the regular term and the summer term included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation.

Michigan did not provide achievement data.

MINNESOTA

Migrant education projects in this state provided services to 490 regular term students and 2,796 summer term students in pre-kindergarten through grade 12. Participants received instructional services in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Also, secondary/GED students received tutoring and handicapped students received instructional services. During the summer term, participants received services in the same areas as regular term participants. In addition, preschool participants received instructional services. For both terms, supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation.

Using criterion-referenced testing, Minnesota reported estimated achievement gains made by participants in kindergarten through grade 8 who attended summer projects in 1987. For reading, students in kindergarten to 2nd or 3rd grade used the Sing, Spell, Read, and Write lesson plan, but were not tested. Second through eighth graders used the McMillan Series R=Basal test. For mathematics, grades 1-8 used the Individualized Computational Skills Program. Language arts students, K through 8, were tested using Individualized Developmental Education Activities.

Tables 43 through 45 present the numbers of students achieving gains in language, reading, and mathematics, respectively. In oral language, gains were stated in terms of objectives mastered. Seventy-three percent of the participants tested in language mastered three or more objectives. In reading, gains were expressed in terms of months. A majority of participants (61 percent) tested in reading gained one month. In mathematics, gains were also expressed in terms of months. Half of the participants tested in mathematics gained one month in mathematics skills.

Testing was not done during the regular term. However, the Minnesota Migrant Education Unit supplements the regular school curriculum.

Table 43

Estimated Achievement Gains in Language by Objectives Mastered, Summer 1987

Minnesota

	Number Tested	Percent Mastering Objectives
5 objectives	43	18%
4 objectives	51	21%
3 objectives	81	34%
2 objectives	42	18%
1 objectives	21	9%
Total	238	

Table 44

Estimated Achievement Gains in Reading in Months, Summer 1987[a/]

Minnesota

	Number Tested	Percent Achieving Gains
3 months or more	69	9%
2 months	182	23%
1 month	480	61%
Less than 1 month	50	50%
Total	781	

a/ Reading one book equals one month gain, reading two books equals two months gain, etc.

Table 45

Estimated Achievement Gains in Mathematics in Months, Summer 1987[a/]

Minnesota

	Number Tested	Percent Achieving Gains
3 months or more	72	9%
2 months	227	29%
1 month	389	50%
Less than 1 month	89	12%
Total	777	

a/ Completion of skill levels (addition, multiplication, etc.) is equated with gains in terms of months. The number of months gained varies.

MISSISSIPPI

Mississippi's migrant education projects provided services to 3,270 regular term students in pre-kindergarten through grade 12. Instructional services were provided in reading, language arts, and mathematics. Other instructional services were provided, but were not specified. Supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. Other supporting services were provided, but were not specified. There was no summer term program.

Using norm-referenced tests, Mississippi provided pre- and post-test achievement data for reading, mathematics, and language arts for the regular term. Data were reported in NCEs for all subjects for the fall-to-spring test cycle. However, for the annual test cycle NCEs were only reported for reading and mathematics.

The following tests were used: CAT (California Achievement Test), ICRT (Individual Criterion Referenced Test), CTBS (Comprehensive Test of Basic Skills), SAT (Stanford Achievement Test) and SRA Achievement Test (Science Research Associates).

Table 46 provides pretest, posttest, and gain NCEs, as well as the number tested, by subject area and grade, for participants tested on a fall-to-spring test cycle. For reading, NCE gains ranged from 8.3 (grade 3) to 0.3 (grade 10). For mathematics, the gains ranged from 10.7 NCEs (grade 9) to -0.3 NCEs (grade 10). For language arts, NCE gains ranged from 19.0 (grade 3) to -3.0 (grade 9).

Table 47 provides pretest, posttest, and gain NCEs, as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. For reading, NCE gains ranged from 14.7 (grade 2) to -2.3 (grade 11). For mathematics, the gains ranged from 38.7 NCEs (grade 2) to -10.0 NCEs (grade 6).

Table 46

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

Mississippi

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
2	108	50.5	56.8	6.3
3	91	34.2	42.5	8.3
4	112	33.8	41.9	8.1
5	121	30.5	35.6	5.1
6	119	28.3	29.8	1.5
7	84	25.5	33.1	7.6
8	46	26.4	27.3	0.9
9	31	30.5	37.2	6.7
10	23	24.0	24.3	0.3
11	21	20.6	24.3	3.7
12	6	28.7	29.1	0.4
Total	762			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
2	57	48.0	56.7	8.7
3	46	34.4	44.0	9.6
4	59	36.0	45.1	9.1
5	64	35.7	45.0	9.3
6	76	40.4	42.9	2.5
7	66	32.9	39.2	6.3
8	27	35.2	42.1	6.9
9	20	29.9	40.6	10.7
10	22	27.2	26.9	-0.3
11	12	19.2	26.1	6.9
12	4	28.1	30.0	1.9
Total	453			

Table 46 (continued)

Language Arts

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
2	13	55.0	57.0	2.0
3	9	43.0	62.0	19.0
4	4	52.0	53.0	1.0
5	12	33.0	39.0	6.0
6	8	52.0	51.0	-1.0
7	10	38.0	48.0	10.0
8	8	44.0	45.0	1.0
9	9	44.0	41.0	-3.0
10	10	37.0	54.0	17.0
11	7	40.0	40.0	0.0
12	--	--	--	--
Total	90			

Table 47

Chapter 1 Migrant Education Achievement Results
for Students Tested on an Annual Schedule,
by Subject Area, 1986-87

Mississippi

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
2	61	34.4	49.1	14.7
3	52	44.1	52.2	8.1
4	41	43.7	47.8	4.1
5	54	60.0	61.6	1.6
6	33	42.2	44.0	1.8
7	27	38.2	44.2	6.0
8	6	49.0	57.0	8.0
9	6	36.9	41.3	4.4
10	17	30.5	41.8	11.3
11	4	33.4	31.1	-2.3
12	2	43.0	52.0	9.0
Total	303			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
2	25	25.7	64.4	38.7
3	15	41.4	60.5	19.1
4	12	29.9	43.3	13.4
5	19	44.4	49.2	4.8
6	18	47.7	37.7	-10.0
7	11	43.3	51.3	8.0
8	6	41.0	52.9	11.9
9	--	--	--	--
10	5	37.0	50.0	13.0
11	3	53.0	50.0	-3.0
12	2	47.0	48.0	1.0
Total	116			

MISSOURI

Migrant education projects in Missouri provided services to 1,158 regular term students in pre-kindergarten through grade 12. Participants received instructional services in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Tutorial services were provided to secondary students. Preschool participants also received instructional services. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; and library services. During the summer term, services were provided to 479 students in pre-kindergarten through grade 11. Instructional services included reading, language arts, and mathematics. Preschool participants also received instructional services. Supporting services provided in the summer term were the same as those provided in the regular term.

Missouri provided a statewide achievement summary which reported information for the following programs: preschool, elementary basic skills, career development, hands-on vocational, and English as a second language. The testing instruments used for school year 1986-87 were a locally-constructed rating scale and the Brigance Diagnostic Inventories. The testing schedule for both the regular term and the summer term included a pretest of selected skills during the first week of the project followed by periodic posttests and pre- and post-tests of new skills during the term. The measure of achievement -- the average percent of gain scores -- was a ratio of what the participants actually gained to what they should have gained.

Table 48 summarizes number tested and the average percentage of gain for each program model for the regular term and for the summer term. Because most of Missouri's achievement report included average percentages of gain for different subject areas within each program model, average percentages of gain in this table are presented as ranges.

For the regular term preschool program, the highest average percent of gain reported was in cognitive skills (65 percent). The lowest average percent of gain reported was in affective/social development skills (58 percent). For the summer term preschool program, the highest average percent gained was in gross motor skills (60 percent). The lowest average percent gained was in fine motor skills (52 percent).

For the regular term elementary basic skills program, the highest average percent gained was 64 percent (math computational skills). The lowest average percent gained was

in oral language skills (49 percent). For the summer basic skills programs (school-based), the lowest average percent gained was 47 percent (oral language skills) and the highest 71 percent (mathematics skills). For the summer home-based skills program the highest average percent gained was 58 percent (mathematics skills). The lowest average percent gained was 43 percent (oral language skills).

Within the career development program, the average percent of gains ranged from 61 percent (social development skills) to 68 percent (mathematics computational skills). The gains made by participants of the hands-on vocational program ranged from 59 percent (social development skills) to 57 percent (vocational skills).

For the English as a second language program, the average percent of gains was 32 percent (oral language skills).

Tables 49 and 50 provide the program, number tested, average number of objectives mastered, and average percent of gain by subject for the regular and summer terms, respectively.

For the regular term, the highest average percentage of gain was 68 percent (mathematics-career developmment program). For the summer term, the highest average percentage of gain was 71 percent (mathematics-elementary basic skills (school-based)).

Table 48

Average Percentage of Gain by Term and by Program Model, School Year 1986-1987

Missouri

	Regular Term		Summer Term	
	Fall 1986-Spring 1987		Summer 1987-Summer 1987	
	Number Tested	Range of Average Percent of Gain	Number Tested	Range of Average Percent of Gain
Preschool program	92	65% - 58%	12	60% - 52%
Elementary basic skills (school-based)	601	64% - 49%	24	71% - 47%
Elementary basic skills (home-based)	--	--	193	58% - 43%
Career development program	97	68% - 61%	--	--
Hands-on vocational program	43	59% - 57%	--	--
English as a second language[a/]	8	32%	--	--
Total	841		229	

a/ No range was provided because only one subject area was tested within this program model.

Table 49

Average Percentage of Gain and Average Number of Objectives Mastered, Regular Term 1986-87

Missouri

Reading

Program	Number Tested	Average Number of Objectives Mastered	Average Percent of Gain
Elementary Basic Skills	559	10	62%
Career Development	97	9	63%
Total	656		

Mathematics

Program	Number Tested	Average Number of Objectives Mastered	Average Percent of Gain
Elementary Basic Skills	491	8	64%
Career Development	92	15	68%
Total	583		

Table 49 (continued)

Oral Language

Program	Number Tested	Average Number of Objectives Mastered	Average Percent of Gain
Elementary Basic Skills	431	5	49%
Career Development	97	7	67%
English as a Second Language	8	20	32%
Total	536		

Table 50

Average Percentage of Gain and Average Number of Objectives Mastered, Summer Term 1987

Missouri

Reading

Program	Number Tested	Average Number of Objectives Mastered	Average Percent of Gain
Elementary Basic Skills (school-based)	24	4	65%
Elementary Basic Skills (home-based)	193	4	53%
Total	217		

Mathematics

Program	Number Tested	Average Number of Objectives Mastered	Average Percent of Gain
Elementary Basic Skills (school-based)	24	5	71%
Elementary Basic Skills (home-based)	7	2	58%
Total	31		

Table 50 (continued)

Oral Language

Program	Number Tested	Average Number of Objectives Mastered	Average Percent of Gain
Elementary Basic Skills (school-based)	24	5	47%
Elementary Basic Skills (home-based)	183	3	43%
Total	207		

MONTANA

During the summer term, migrant education services were provided to 750 students in pre-kindergarten through grade 12. Participants received services in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Secondary students received tutorial services. Supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. There were no migrant education projects in the regular term.

Montana provided achievement information by school district. Test scores from point-in-time testing for reading and mathematics were reported. The reading instructional component used was Reading Basics Plus. Students tested in mathematics used the Individualized Mathematics Program (IMP). Given the information provided, gain scores could not be aggregated statewide.

NEBRASKA

Nebraska's migrant education projects provided services to 690 summer term students in pre-kindergarten through grade 12. Participants received instructional services in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. There were no migrant education projects in the regular term.

No achievement information was provided for the summer term.

NEVADA

During the regular term, Nevada's migrant education projects provided services to 548 students in pre-kindergarten through grade 11. Instructional services were provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Supporting services were not provided, and there was no summer term program.

Nevada provided pre- and post-test achievement data for reading, mathematics, and language arts. Data were reported in NCEs for the fall-to-spring and annual testing cylces, using norm-referenced testing. A number of tests were used. Three of these were the Stanford Achievement Test (SAT), the Iowa Test of Basic Skills (ITBS) and the California Achievement Test (CAT).

Table 51 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for the fall-to-spring testing cycle. NCE gains for reading ranged from 13.7 (grade 6) to -13.4 (grade 10). For participants tested in mathematics, gains ranged from 22.1 NCEs (grade 5) to -8.4 NCEs (grade 7). Gains for language arts ranged from 22.0 NCEs (grade 3) to -1.7 NCEs (grade 5).

Table 52 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for the annual testing cycle. NCE gains for reading ranged from 6.8 (grade 7) to -1.2 (grade 3). For participants tested in mathematics, gains ranged from 12.3 NCEs (grade 8) to -3.2 NCEs (grade 6). Gains for language arts ranged from 8.4 NCEs (grade 3) to 2.5 NCEs (grade 8).

Table 51

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

Nevada

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	24	14.5	21.0	6.5
2	12	44.0	46.9	2.9
3	11	39.4	30.7	-8.7
4	3	41.5	31.6	-9.9
5	7	41.9	38.6	-3.3
6	7	21.4	35.1	13.7
7	3	18.9	27.9	9.0
8	3	35.1	37.8	2.7
9	4	11.1	18.4	7.3
10	1	32.3	18.9	-13.4
11	1	64.9	65.6	0.7
12	2	63.5	65.0	1.5
Total	78			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	7	21.9	35.1	13.2
2	6	44.7	60.0	15.3
3	7	24.1	27.9	3.8
4	1	20.4	25.3	4.9
5	4	22.7	44.8	22.1
6	7	34.7	37.5	2.8
7	2	40.2	31.8	-8.4
8	2	18.5	26.3	7.8
9	2	25.6	35.8	10.2
10	--	--	--	--
11	1	33.7	35.8	2.1
12	2	37.1	37.5	0.4
Total	41			

Table 51 (continued)

Language Arts

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	--	--	--	--
3	4	5.1	27.1	22.0
4	--	--	--	--
5	7	45.8	44.1	-1.7
6	2	36.5	44.1	7.6
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	13			

Table 52

Chapter 1 Migrant Education Achievement Results for Students Tested on an Annual Schedule, by Subject Area, 1986-87

Nevada

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	29	32.0	35.7	3.7
3	24	41.7	40.5	-1.2
4	14	39.3	43.1	3.8
5	3	40.2	44.8	4.6
6	8	30.6	30.1	-0.5
7	12	29.1	35.9	6.8
8	7	29.7	32.4	2.7
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	97			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	20	41.8	44.7	2.9
3	26	44.0	50.8	6.8
4	14	51.5	53.3	1.8
5	7	52.4	52.2	-0.2
6	11	45.9	42.7	-3.2
7	14	29.8	35.5	5.7
8	8	31.7	44.0	12.3
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	100			

Table 52 (continued)

Language Arts

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	22	31.8	36.6	4.8
3	22	35.4	43.8	8.4
4	--	--	--	--
5	3	38.2	41.3	3.1
6	11	38.5	43.0	4.5
7	12	32.9	36.2	3.3
8	8	31.7	34.2	2.5
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	78			

NEW HAMPSHIRE

Migrant education projects in this state provided services to 39 regular term students in kindergarten through grade 11. Participants received instructional services in reading, language arts, mathematics, and vocational/career education. Secondary tutorial and GED/HEP services were also provided. Supporting services included attendance, social work, and guidance; dental; and nutrition. The summer term projects served 68 participants in pre-kindergarten through 12th grade (except kindergarten). Instructional services included language arts, mathematics, and vocational/career education. Secondary tutorial services were also provided. Supporting services included attendance, social work, and guidance; health; nutrition; and pupil transportation.

Achievement data were not provided for the regular term or the summer term. However, testing (using the California Achievement Test) was initiated in the fall of 1987.

NEW JERSEY

The migrant education projects in New Jersey served 1,411 regular term students and 926 summer term students in pre-kindergarten through grade 12. Participants were provided the same instructional and supporting services in both terms. Instructional services were provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Preschool, gifted, HEP, and handicapped students also received instruction. Tutorial services were provided for secondary students. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; and eye health services.

New Jersey provided pre- and post-test achievement data for reading, writing, and mathematics for the regular term. Data were reported in NCEs for the fall-to-spring and annual testing cycles.

Norm-referenced testing was administered using the following tests: the California Achievement Test (CAT), Comprehensive Test of Basic Skills (CTBS), Individualized Test of Basic Skills (ITBS), Metropolitan Achievement Test (MAT), Science Research Associates (SRA), and the Stanford Achievement Test (SAT).

Table 53 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on a fall-to-spring test cycle. For participants tested in reading, gains ranged from 23.9 NCEs (grade 1) to -1.8 NCEs (grade 10). For mathematics, NCE gains ranged from 22.5 (grade 1) to 0.7 (grade 9). For writing, NCE gains ranged from 22.5 NCEs (grade 11) to -15.6 NCEs (grade 9).

Table 54 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. For participants tested in reading, gains ranged from 13.6 NCEs (grade 10) to -4.0 NCEs (grade 12). For mathematics, the NCE gains ranged from 10.7 (grade 1) to -17.0 (grade 12). For writing, the NCE gains ranged from 20.1 (grade 1) to -3.9 (grade 7).

During the summer term there was a program evaluation. Skills mastery tests were given, but were not aggregated statewide.

Table 53

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

New Jersey

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	20	16.1	40.0	23.9
2	23	38.1	38.1	0.0
3	30	30.6	41.1	10.5
4	18	21.2	30.0	8.8
5	14	34.8	42.6	7.8
6	18	33.4	40.2	6.8
7	10	29.4	37.4	8.0
8	17	30.6	38.3	7.7
9	14	28.5	30.6	2.1
10	6	27.3	25.5	-1.8
11	3	21.3	34.7	13.4
12	2	29.0	37.0	8.0
Total	175			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	8	31.6	54.1	22.5
2	14	45.0	49.0	4.0
3	20	35.4	54.7	19.3
4	16	38.5	41.8	3.3
5	16	38.0	48.9	10.9
6	17	35.7	47.8	12.1
7	7	39.0	44.1	5.1
8	14	41.0	46.2	5.2
9	15	37.1	37.8	0.7
10	9	31.8	39.7	7.9
11	2	37.0	56.0	19.0
12	2	40.0	56.0	16.0
Total	140			

Table 53 (continued)

Writing

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	1	57.0	59.3	2.3
2	10	26.5	28.6	2.1
3	24	37.7	48.9	11.2
4	9	31.5	30.3	-1.2
5	13	35.9	40.5	4.6
6	15	38.6	47.1	8.5
7	6	36.7	50.6	13.9
8	6	34.2	46.8	12.6
9	10	41.3	25.7	-15.6
10	6	36.5	41.7	5.2
11	2	27.0	49.5	22.5
12	2	38.0	48.0	10.0
Total	104			

Table 54

Chapter 1 Migrant Education Achievement Results for Students Tested on an Annual Schedule, by Subject Area, 1986-87

New Jersey

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	35	33.4	42.1	8.7
2	42	44.0	46.6	2.6
3	36	39.0	44.4	5.4
4	32	37.7	39.9	2.2
5	22	44.0	43.8	-0.2
6	37	36.7	40.5	3.8
7	20	41.0	47.3	6.3
8	25	33.9	35.8	1.9
9	19	41.8	52.4	10.6
10	15	35.9	49.5	13.6
11	10	43.7	43.5	-0.2
12	1	25.0	21.0	-4.0
Total	294			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	35	40.4	51.1	10.7
2	42	44.8	47.8	3.0
3	34	43.6	51.3	7.7
4	32	44.0	44.5	0.5
5	21	47.9	47.4	-0.5
6	34	48.5	51.8	3.3
7	20	50.6	55.1	4.5
8	24	36.5	45.5	9.0
9	17	44.0	51.0	7.0
10	11	44.7	47.6	2.9
11	9	46.1	43.4	-2.7
12	1	34.0	17.0	-17.0
Total	280			

Table 54 (continued)

Writing

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	11	20.7	40.8	20.1
2	17	36.9	45.9	9.0
3	13	45.5	49.9	4.4
4	18	33.4	40.6	7.2
5	9	43.8	47.0	3.2
6	18	39.4	40.9	1.5
7	6	45.8	41.9	-3.9
8	8	30.0	45.5	15.5
9	6	36.3	37.7	1.4
10	8	37.0	43.6	6.6
11	4	49.4	47.9	-1.5
12	1	21.0	31.0	10.0
Total	119			

NEW MEXICO

New Mexico's migrant education projects provided services to 1,474 regular term students in pre-kindergarten through grade 12. Instructional services were provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Tutorial services were also provided. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; media services; clothing; and eye glasses. Summer term services were provided to 658 pre-kindergarten through twelfth graders. Except for tutorial services, participants in the summer term received the same instructional services as those received by participants in the regular term. They also received physical education, computer education, and art appreciation. Supporting services included health, dental, nutrition, pupil transportation, field trips, health education, and nutrition education.

Using norm-referenced tests, New Mexico provided pre-and post-test achievement data for reading, mathematics, and language arts for the regular term. Data were reported in NCEs for the fall-to-spring and annual testing cycles. The most commonly used test was the Comprehensive Test of Basic Skills (CTBS).

Table 55 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on a fall-spring test cycle. For participants tested in reading, gains ranged from 10.1 NCEs (grade 3) to -9.7 NCEs (grade 5). For mathematics, NCE gains ranged from 18.8 (grade 5) to -2.7 (grade 2). For language arts, NCE gains ranged from 11.4 (grade 11) to 2.4 (grade 10).

Table 56 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. For participants tested in reading, gains ranged from 14.0 NCEs (grade 2) to -2.0 NCEs (grade 9). For mathematics, NCE gains ranged from 17.3 (grade 2) to -9.7 (grade 8). For language arts, NCE gains ranged from 12.6 (grade 11) to -0.4 (grade 10).

There was no statewide testing during the summer. However, there was school-level and locally-developed testing.

Table 55

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

New Mexico

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	4	35.3	41.8	6.5
3	9	35.8	45.9	10.1
4	1	43.0	51.0	8.0
5	3	42.7	33.0	-9.7
6	3	14.7	21.0	6.3
7	--	--	--	--
8	3	25.0	33.0	8.0
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	23			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	7	33.6	30.9	-2.7
3	12	29.7	44.8	15.1
4	13	24.9	31.6	6.7
5	6	28.4	47.2	18.8
6	4	33.5	42.5	9.0
7	14	33.5	40.9	7.4
8	3	36.3	34.3	-2.0
9	3	28.3	33.0	4.7
10	8	24.0	28.8	4.8
11	10	37.6	36.8	-0.8
12	5	34.8	35.6	0.8
Total	85			

Table 55 (continued)

Language Arts

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	29	20.7	27.9	7.2
3	31	27.2	34.2	7.0
4	51	25.9	30.2	4.3
5	35	26.7	31.0	4.3
6	31	27.8	30.4	2.6
7	34	26.9	35.3	8.4
8	26	28.6	32.0	3.4
9	22	27.8	31.4	3.6
10	14	25.7	28.1	2.4
11	20	18.8	30.2	11.4
12	7	25.6	30.6	5.0
Total	300			

Table 56

Chapter 1 Migrant Education Achievement Results for Students Tested on an Annual Schedule, by Subject Area, 1986-87

New Mexico

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	1	43.0	57.0	14.0
3	5	34.4	41.8	7.4
4	18	36.6	39.3	2.7
5	25	31.4	34.6	3.2
6	18	34.5	33.2	-1.3
7	11	25.0	38.0	13.0
8	10	35.0	34.0	-1.0
9	10	32.0	30.0	-2.0
10	1	28.0	32.0	4.0
11	1	51.0	55.0	4.0
12	--	--	--	--
Total	100			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	9	33.7	51.0	17.3
3	7	28.9	37.3	8.4
4	11	34.5	35.1	0.6
5	21	36.4	41.8	5.4
6	20	37.2	33.0	-4.2
7	23	29.8	37.8	8.0
8	11	42.2	32.5	-9.7
9	10	36.1	35.0	-1.1
10	4	34.0	43.0	9.0
11	6	51.0	42.0	-9.0
12	--	--	--	--
Total	122			

Table 56 (continued)

Language Arts

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	26	26.6	35.4	8.8
3	39	32.2	37.3	5.1
4	19	33.3	42.8	9.5
5	21	32.6	34.7	2.1
6	20	26.2	37.0	10.8
7	19	27.7	39.8	12.1
8	20	31.5	43.9	12.4
9	25	29.9	32.1	2.2
10	5	29.0	28.6	-0.4
11	7	17.1	29.7	12.6
12	5	15.8	25.8	10.0
Total	206			

NEW YORK

In New York, migrant education services were provided to 4,594 regular term students and 2,308 summer term students in pre-kindergarten through grade 12. Participants in both terms received services in English to students of limited English background, reading, language arts, mathematics, vocational/career education, sciences, adolescent education, health, and physical education. Also, during both terms parents received education packets and parent education. Supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. During the summer term there were field trips.

Norm-referenced tests were administered, in large part to resettled migrant students, on a fall-spring test cycle. However, since migrant pupils were not always present for both test administrations, migrant projects were encouraged to use other measures for assessing pupil achievement.

Where appropriate, mastery level criterion-referenced tests were administered, and the resultant data, including instructional time, were reported by subject area and grade level.

Criterion-referenced testing in New York provided information on participants' achievement by allowing for the examination of the mastery of objectives by the amount of instructional time. Based on previous experience, it was expected that participants would master one instructional objective for each six hours of instruction. New York reported, for the regular term, the number of participants, mean number of contact hours, mean number of objectives mastered, mean number of contact hours per objective, and mean number of objectives per hour.

Table 57 shows this information, by skill area (readiness, reading, and mathematics) and grade, for non-limited English proficient participants tested on an annual test cycle. Table 58 presents this information, by skill area (readiness, reading, mathematics, English as a second language, and reading in native language) and grade, for limited English proficient participants tested on an annual test cycle.

According to the information reported, participants demonstrated progress in mastering skills in all subject areas where services were provided. In almost all cases, as the amount of time increased, the number of objectives mastered also increased.

Both non-limited English proficient and limited English proficient participants demonstrated gains. However, in almost all cases, the amount of time needed for mastery was greater for the limited English proficient participants.

Criterion-referenced testing was administered during the summer. However, the information was not provided in the State Performance Report.

Table 57

Number of Objectives Mastered for Non-Limited English Proficient Students Tested on an Annual Schedule, by Subject Area, 1986-87

New York

Readiness

Grade	Number Tested	Mean Number of Contact Hours	Mean Number Objectives Mastered	Mean Number Contact Hours Per Objective	Mean Number Objectives Per Hour
K	184	32	6.6	4.84	0.20
1	98	24	6.2	3.87	0.25
2	10	10	4.0	2.50	0.40
Ungraded	38	23	3.2	7.18	0.13
Total	330				

Reading

Grade	Number Tested	Mean Number of Contact Hours	Mean Number Objectives Mastered	Mean Number Contact Hours Per Objective	Mean Number Objectives Per Hour
K	154	22	10.6	2.07	0.48
1	230	23	7.1	3.23	0.30
2	200	29	5.0	5.80	0.17
3	206	26	4.7	5.53	0.18
4	138	22	6.5	3.38	0.29
5	126	28	4.9	5.71	0.17
6	77	36	1.1	3.27	0.03
7	102	27	4.8	5.62	0.17
8	100	32	4.8	6.66	0.15
9	56	23	3.6	6.38	0.15
10	48	22	2.1	10.40	0.09
11	20	32	5.1	6.27	0.15
12	24	29	0.8	3.62	0.02
Ungraded	110	25	5.0	5.00	0.02
Total	1,591				

Table 57 (continued)

Mathematics

Grade	Number Tested	Mean Number of Contact Hours	Mean Number Objectives Mastered	Mean Number Contact Hours Per Objective	Mean Number Objectives Per Hour
K	42	29	13.7	2.11	0.47
1	126	10	3.5	2.85	0.35
2	128	12	2.6	4.61	0.21
3	146	12	3.2	3.75	0.26
4	110	10	1.7	5.88	0.17
5	96	10	2.2	4.54	0.22
6	62	13	1.7	7.64	0.13
7	74	10	2.8	3.57	0.28
8	78	12	2.7	4.44	0.22
9	28	12	2.2	5.45	0.18
10	48	22	2.1	10.40	0.09
11	16	9	1.5	6.00	0.16
Ungraded	88	14	2.0	7.00	0.14
Total	1,042				

Table 58

Number of Objectives Mastered for Limited English Proficient Students Tested on an Annual Schedule, by Subject Area, 1986-87

New York

Readiness

Grade	Number Tested	Mean Number of Contact Hours	Mean Number Objectives Mastered	Mean Number Contact Hours Per Objective	Mean Number Objectives Per Hour
K	10	61	7.2	8.47	0.11
1	6	44	6.3	6.98	0.14
Ungraded	4	63	8.0	7.97	0.12
Total	20				

Reading

Grade	Number Tested	Mean Number of Contact Hours	Mean Number Objectives Mastered	Mean Number Contact Hours Per Objective	Mean Number Objectives Per Hour
K	40	57	17.9	3.18	0.31
1	48	61	13.8	4.42	0.22
2	32	39	7.2	5.41	0.18
3	24	67	6.3	10.60	0.09
4	50	55	5.7	9.64	0.10
5	32	43	2.0	21.50	0.04
6	36	44	7.1	6.19	0.16
7	36	32	5.5	5.81	0.17
8	34	39	6.4	6.09	0.16
9	40	33	5.3	6.22	0.16
10	30	35	4.9	7.14	0.14
11	20	32	5.1	6.27	0.15
12	8	14	3.3	4.30	0.23
Ungraded	32	16	3.2	5.00	0.20
Total	462				

Table 58 (continued)

Mathematics

Grade	Number Tested	Mean Number of Contact Hours	Mean Number Objectives Mastered	Mean Number Contact Hours Per Objective	Mean Number Objectives Per Hour
K	42	29	13.7	2.11	0.47
1	52	23	7.0	3.28	0.30
2	22	17	2.5	6.80	0.14
3	32	25	2.5	10.00	0.10
4	54	18	4.7	3.82	0.26
5	32	16	2.2	7.27	0.13
6	20	22	4.2	5.23	0.19
7	22	29	3.6	8.09	0.12
8	12	15	1.7	8.82	0.11
9	40	33	5.3	6.22	0.16
10	20	29	5.0	5.80	0.17
Ungraded	26	17	4.2	4.04	0.24
Total	374				

English as a Second Language

Grade	Number Tested	Mean Number of Contact Hours	Mean Number Objectives Mastered	Mean Number Contact Hours Per Objective	Mean Number Objectives Per Hour
K	54	26	13.3	1.95	0.51
1	42	32	6.1	5.24	0.19
2	18	29	4.2	6.90	0.14
3	30	36	3.1	1.16	0.08
4	50	32	3.3	9.69	0.10
5	38	21	2.9	7.24	0.13
6	22	17	1.6	10.60	0.04
8	10	52	3.8	13.60	0.07
9	6	16	2.0	8.00	0.12
Ungraded	30	24	4.4	5.45	0.18
Total	300				

Table 58 (continued)

Reading in Native Language

Grade	Number Tested	Mean Number of Contact Hours	Mean Number Objectives Mastered	Mean Number Contact Hours Per Objective	Mean Number Objectives Per Hour
K	26	22	1.6	13.70	0.07
1	44	27	5.3	5.09	0.19
2	16	24	4.0	6.00	0.16
3	26	25	3.7	6.75	0.14
4	42	21	3.0	7.00	0.14
5	28	17	3.1	5.48	0.18
6	18	16	1.9	8.42	0.11
Total	200				

NORTH CAROLINA

North Carolina's migrant education projects provided services to 4,074 regular term students and 3,171 summer term students in pre-kindergarten through grade 12. Instructional services were provided in English to students of limited English background, reading, language arts, mathematics, vocational/career education, social studies, physical education, enrichment, and cultural arts. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; and clothing. Screening for vision and hearing were provided, as well as home packets.

An assessment of achievement status of migrant participants in the regular term was obtained by an analysis of test results from the annual statewide testing program. This assessment was provided by norm-referenced testing. Students in grades 1, 2, 3, 6, and 8 were tested annually, usually in April, in the areas of reading, mathematics, and language. The instrument used was the California Achievement Test (CAT). During 1986, the state switched from CAT Form C to CAT Form E.

Table 59 provides a scale score, percentile rank, and NCE score, as well as the number tested, by subject area and grade. Percentiles scores were the highest in mathematics for grades 1, 2, 3, and 6.

No statewide achievement information was provided for the summer term. However, some teacher-developed testing was done.

Table 59

Achievement Results for Migrant Participants from State Assessment Program, by Subject Area, 1986-87

North Carolina

Reading

Grade	Number Tested	Scale Score	Percentile	NCE
1	315	479	40	42
2	260	585	31	40
3	289	641	31	40
6	245	705	25	37
8	231	738	26	37
Total	1,340			

Language

Grade	Number Tested	Scale Score	Percentile	NCE
1	315	525	38	45
2	260	625	37	44
3	289	656	36	43
6	245	691	36	42
8	231	712	37	43
Total	1,340			

Mathematics

Grade	Number Tested	Scale Score	Percentile	NCE
1	315	535	59	55
2	260	638	57	53
3	289	669	40	47
6	245	731	40	45
8	231	761	37	43
Total	1,340			

NORTH DAKOTA

During the regular term, the migrant education projects served 407 students in pre-kindergarten through grade 11 (excluding 10th grade). Participants received instructional services in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Supporting services included attendance, social work, and guidance; nutrition; and pupil transportation. The summer term migrant projects served 943 students in pre-kindergarten through grade 12. Participants in the summer term received the same instructional services as those provided in the regular term. Supporting services included attendance, social work, and guidance; nutrition; dental; health; and pupil transportation.

Pre- and post-test results for reading and mathematics during the state's summer projects were gathered and averaged for the participating sites.

Table 60 provides NCE scores, by subject area and grade. For reading, the NCEs ranged from 6.5 (grade 2) to 0.5 (grade 5). For mathematics, the NCEs ranged from 6.3 (grade 4) to 1.4 (grade 5).

Regular term participants were tested under the Regular Chapter 1 Program.

Table 60

Average NCE Scores for Migrant Participants, by Subject Area, Summer 1987

North Dakota

Reading

Grade	NCEs
1	+4.3 NCEs gain
2	+6.5 NCEs gain
3	+2.4 NCEs gain
4	+0.6 NCEs gain
5	+0.5 NCEs gain
6	+0.9 NCEs gain

Mathematics

Grade	NCEs
1	+4.4 NCEs gain
2	+4.0 NCEs gain
3	+3.2 NCEs gain
4	+6.3 NCEs gain
5	+1.4 NCEs gain
6	+2.3 NCEs gain

OHIO

Migrant education projects in Ohio served 1,369 regular term students and 2,419 summer term students in pre-kindergarten through grade 12. For both terms, instructional services were provided in English to students of limited English background, reading, language arts, and mathematics. Preschool, gifted, GED/HEP, and handicapped participants also received instructional services. Secondary tutorial services were also provided. Regular term supporting services included attendance, social work, and guidance; nutrition; and pupil transportation. Summer supporting services included the same services found in the regular term plus health and dental.

Ohio provided pre- and post-test NCE scores for reading and mathematics on an annual test cycle. Scores were combined for a group of children tested in the following years: 1984-85, 1985-86, and 1986-87. Scores using the Stanford Achievement Test (SAT) and the SESAT for the regular and summer terms were combined.

Table 61 provides the NCE pretest, posttest and gain scores, as well as the number tested, by subject area and grade. Table 62 presents the three year sustained gains by grade and subject area. For reading, sustained NCE gains ranged from 48.6 (grade 2) to 23.0 (grade 5). For mathematics, sustained NCE gains ranged from 49.6 (grade 2) to 36.4 (grades 1 and 5).

Table 61

Gain Scores for Migrant Students Tested on a Fall-Spring or an Annual Test Cycle, by Subject Area, 1986-87

Ohio

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	15	21.7	32.0	10.3
1	18	30.1	32.1	2.0
2	22	39.0	43.7	4.7
3	18	46.3	44.6	-1.7
4	10	27.7	28.8	1.1
5	5	26.6	24.3	-2.3
6	4	32.5	29.6	-2.9
Total	92			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	15	25.5	45.1	19.6
1	18	44.9	35.9	-9.0
2	22	45.3	41.0	-4.3
3	18	41.5	47.9	6.4
4	10	38.2	36.1	-2.1
5	5	35.1	37.7	2.6
6	4	41.7	41.2	-0.5
Total	92			

Table 62

Chapter 1 Migrant Education Results
Three Year Sustained NCE Gains, by Subject Area, 1984-85, 1985-86, and 1986-87

Ohio

Grade	Number Tested	Sustained NCE Gains	
		Reading	Mathematics
K	15	30.4	37.1
1	18	29.5	36.4
2	22	48.6	49.6
3	18	37.5	43.8
4	10	29.9	40.4
5	5	23.0	36.4
6	4	37.4	42.6
Total	92		

OKLAHOMA

The migrant education projects in the regular term in this state served 1,753 students in pre-kindergarten through grade 12. Participants received instructional services in English to students of limited English background, reading, language arts, mathematics, vocational/career education, and cultural awareness. Supporting services included attendance, social work, and guidance; health; dental; and nutrition. There were no summer term projects.

Oklahoma provided pre- and post-test achievement data for reading, mathematics, and language arts. Data were reported in NCEs for the fall-to-spring and annual test cycles. Most districts used the Metropolitan Achievement Test (MAT). Some districts used the MAT and the California Achievement Test (CAT).

Table 63 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on a fall-to-spring test cycle. For reading, NCE gains ranged from 12.3 (kindergarten) to -4.0 (grade 7). For mathematics, the gains ranged from 9.1 NCEs (grade 6) to -8.0 NCEs (grade 8). For language arts, NCE gains ranged from 12.9 (grade 3) to -17.5 (grade 11).

Table 64 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. For reading, NCE gains ranged from 16.1 (kindergarten) to -5.5 (grade 3). For mathematics, the gains ranged from 14.8 NCEs (kindergarten) to -9.5 NCEs (grade 12). For language arts, NCE gains ranged from 8.6 (grade 4) to -11.0 (grade 11).

Table 63

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

Oklahoma

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	13	29.6	41.9	12.3
1	87	45.7	50.3	4.6
2	75	37.4	41.8	4.4
3	59	30.3	37.4	7.1
4	59	37.6	43.3	5.7
5	51	37.1	41.4	4.3
6	42	40.4	44.1	3.7
7	9	37.5	33.5	-4.0
8	14	27.5	25.7	-1.8
9	4	44.1	40.7	-3.4
10	5	37.0	42.0	5.0
11	2	14.5	20.5	6.0
12	4	23.1	21.8	-1.3
Total	424			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	13	26.5	29.6	3.1
1	75	40.4	47.4	7.0
2	57	36.3	41.8	5.5
3	47	36.2	44.4	8.2
4	46	33.6	39.7	6.1
5	52	35.6	39.3	3.7
6	32	37.0	46.1	9.1
7	8	32.0	39.3	7.3
8	2	49.5	41.5	-8.0
9	1	37.1	43.0	5.9
10	--	--	--	--
11	2	20.5	15.0	-5.5
12	3	8.6	14.6	6.0
Total	338			

Table 63 (continued)

Language Arts

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	9	39.4	48.2	8.8
1	43	36.4	42.9	6.5
2	52	35.2	42.1	6.9
3	34	35.4	48.3	12.9
4	30	40.0	41.9	1.9
5	33	41.3	47.7	6.4
6	37	37.4	42.9	5.5
7	16	38.9	42.7	3.8
8	16	38.2	41.5	3.3
9	--	--	--	--
10	--	--	--	--
11	2	31.5	14.0	-17.5
12	3	19.2	18.6	-0.6
Total	275			

Table 64

Chapter 1 Migrant Education Achievement Results for Students Tested on an Annual Schedule, by Subject Area, 1986-87

Oklahoma

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	6	9.8	25.9	16.1
1	16	55.8	53.2	-2.6
2	29	51.6	49.3	-2.3
3	16	54.1	48.6	-5.5
4	19	44.6	49.7	5.1
5	11	38.3	36.8	-1.5
6	19	41.9	45.9	4.0
7	17	50.9	50.2	-0.7
8	23	43.2	50.1	6.9
9	13	45.6	41.8	-3.8
10	13	49.0	44.1	-4.9
11	10	41.2	43.4	2.2
12	5	52.4	51.7	-0.7
Total	197			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	6	2.7	17.5	14.8
1	9	41.3	45.4	4.1
2	46	51.8	53.4	1.6
3	35	38.8	49.6	10.8
4	45	42.9	45.4	2.5
5	30	38.8	37.5	-1.3
6	32	42.3	41.7	-0.6
7	27	44.9	47.3	2.4
8	33	44.0	44.6	0.6
9	11	45.7	47.4	1.7
10	8	50.7	45.1	-5.6
11	10	39.4	43.8	4.4
12	1	67.0	57.5	-9.5
Total	293			

Table 64 (continued)

Language Arts

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	--	--	--	--
1	8	55.1	49.8	-5.3
2	30	56.3	48.1	-8.2
3	21	45.8	41.9	-3.9
4	26	40.9	49.5	8.6
5	20	40.3	44.5	4.2
6	28	33.9	42.0	8.1
7	18	43.9	45.1	1.2
8	25	42.1	45.6	3.5
9	8	33.8	35.2	1.4
10	14	41.9	42.1	0.2
11	7	37.0	26.0	-11.0
12	3	27.9	19.3	-8.6
Total	208			

OREGON

Oregon's migrant education projects served 8,224 regular term students and 4,079 summer term students in pre-kindergarten through grade 12. Participants in both terms received instructional services in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Other instructional services were also provided, but were not specified. Supporting services provided in both terms included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation.

The Chapter 1-M ECIA Oregon Migrant Education Program Educational Impact Report included statewide achievement data for the regular and summer terms. Oregon's migrant participants were tested on their ability to successfully complete educational components. The term educational component referred to the basic instructional planning and operations unit. Components varied in terms of the number of participants and the subject or need, but they all allowed for clear evaluation. The components were designed locally to serve the particular needs of specific, clearly identified target populations of migrant students. For each educational component there was a specification of target population in terms of numbers, migrant status, language characteristics, grade levels, and location.

All of the children in a particular component had certain common characteristics and received the same type of instructional service. A student typically participated in more than one component. Components varied in size and their membership was often changing. The most important thing was that they fit the particular needs of identified groups of children.

The task specific methods included a series of locally-developed devices known as (a) individual short-term plans, (b) small group short-term plans, (c) class skills lists, and (d) assignment completion reports. These devices yielded a percentage of attainment of objectives; the percentage criteria for the task specific methods were:

85-100%	very successful
75-84%	successful
65-74%	moderately successful
0-64%	unsuccessful
nd	no data provided, cannot be interpreted
canc	cancelled, component was not conducted

During the regular term, students participated in 140 components. Over one-half of the students tested (5,187) were in the 95 components that were rated very successful, and 2,224 participants were in the 36 components rated successful. Five components (with 78 participants) were rated moderately successful, only three components (with 31 participants) were rated unsuccessful, and one component (with 71 participants) had no data.[10]

During the summer term, students participated in 68 components. Over one-half of the participants (7,551) were in components rated very successful; 2,292 were in components rated successful; 373 were in components rated moderately successful; and there were no participants in components rated unsuccessful.

In addition, during the regular term the Comprehensive Test of Basic Skills (CTBS) and the Science Research Associates (SRA) were used to test participants in reading, mathematics, and language arts. However, because these norm-referenced tests were presented at the individual level, the scores were not included in this report.

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[10]The number tested represents a duplicated count.

PENNSYLVANIA

Pennsylvania's migrant education projects served 2,594 regular term students in pre-kindergarten through grade 12. Instructional services were provided in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Other instructional services were also provided, but were not specified. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; and preschool. During the summer term, 892 students in pre-kindergarten through grade 12 were served. Summer term participants received the same instructional services as those provided to regular term participants. Supporting services in the summer term included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; swimming; preschool; and computer instruction.

Using norm-referenced tests, Pennsylvania provided pre- and post-test achievement data for reading and mathematics for the regular term. Data were reported in NCEs for the fall-to-spring and annual test cycles.

The following tests were used: Migrant Education Program Criterion Referenced Test, Brigance Early Childhood Inventory of Basic Skills, Brigance Test of Early Skills, and Language Assessment Scale.

Table 65 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on a fall-to-spring test cycle. For reading, NCE gains ranged from 9.1 (grade 7) to 1.4 (grade 9). For mathematics, the gains ranged from 30.5 NCEs (grade 2) to -3.3 NCEs (grade 7).

Table 66 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants on an annual test cycle. For reading, NCE gains ranged from 24.9 (grade 1) to -13.4 (grade 2). For mathematics, the gains ranged from 8.6 NCEs (grade 3) to 6.1 NCEs (grade 4).

Criterion-referenced and locally-developed tests were also used, but the scores were not reported.

Diagnostic testing was done during the summer, but not aggregated statewide.

Table 65

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

Pennsylvania

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	38	37.3	45.4	8.1
2	17	37.2	42.8	5.6
3	14	36.2	38.8	2.6
4	12	36.6	42.1	5.5
5	13	37.8	43.5	5.7
6	12	34.6	42.5	7.9
7	6	24.7	33.8	9.1
8	4	24.9	27.2	2.3
9	3	28.9	30.3	1.4
Total	119			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	9	39.2	51.9	12.7
2	9	25.2	55.7	30.5
3	3	38.3	57.8	19.5
4	3	21.8	35.2	13.4
5	5	27.1	37.6	10.5
6	4	29.3	53.4	24.1
7	2	35.8	32.5	-3.3
8	1	42.5	45.2	2.7
Total	36			

Table 66

Chapter 1 Migrant Education Achievement Results for Students Tested on an Annual Schedule, by Subject Area, 1986-87

Pennsylvania

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	10	20.3	45.2	24.9
2	7	32.7	19.3	-13.4
3	24	21.9	33.6	11.7
4	13	27.0	25.4	-1.6
5	12	29.0	36.2	7.2
6	8	18.1	23.8	5.7
7	--	28.3	29.8	1.5
8	4	14.8	15.2	0.4
9	3	36.8	39.1	2.3
Total	81			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
3	7	39.1	47.7	8.6
4	7	42.5	48.6	6.1
5	4	37.7	44.6	6.9
6	3	34.6	40.8	6.2
Total	21			

PUERTO RICO

Puerto Rico's migrant education projects served 7,921 regular term students in pre-kindergarten through grade 12. Instructional services were provided in English to students of limited English background, reading, mathematics, and Spanish reading and language arts. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; ophthamology; and laboratories. There were no summer term projects.

The Test of Basic Skills provided criterion-referenced achievement data for the regular term. The achievement information was reported as percentages of skills mastered by subject area and grade. Aggregate test score information was provided for English and Spanish, but the mathematics scores were provided by region and could not be aggregated. For seventh through ninth graders tested in Spanish and English, separate scores were provided for reading and language.

Table 67 provides, for participants in the six regions combined, the average number of skills tested, the average number of skills mastered, the average number of skills not mastered, and the average percentage of skills mastered, by subject area (English and Spanish) and grade. Participants tested in Spanish had an average percentage of skills mastered ranging from 80 percent (grade 4) to no skills mastered (grades 7 and 8 reading, grade 9 reading and language). The highest average percentage of skills mastered was found in grades 2 through 6. Participants tested in English had an average percentage of skills mastered ranging from 92 percent (grade 6) to no skills mastered (grade 8 reading).

Table 68 provides the number of elementary, intermediate, and total participants tested, by subject.

Table 67

Achievement Results -- Skills Mastered,
by Subject Area and Grade, 1986-87

Puerto Rico

Spanish

Grade	Participants			
	Average Number of Skills Tested	Average Number of Skills Mastered	Average Number of Skills Not Mastered	Average Percentage of Skills Mastered
2	8	3	5	38%
3	9	2	7	22%
4	15	12	3	80%
5	16	10	6	62%
6	16	7	9	44%
Reading				
7	4	0	4	0%
Language				
7	11	2	9	18%
Reading				
8	5	0	5	0%
Reading				
9	7	0	7	0%
Language				
9	12	0	12	0%

Table 67 (continued)

English

Grade	Participants: Average Number of Skills Tested	Average Number of Skills Mastered	Average Number of Skills Not Mastered	Average Percentage of Skills Mastered
4	16	9	7	56%
5	10	2	8	20%
6	12	11	1	92%
Language 7	8	2	6	25%
Reading 7	5	1	4	20%
Reading 8	6	0	6	0%
Language 8	5	2	3	40%
Reading 9	6	2	4	33%
Language 9	8	6	2	75%

Table 68

Number of Chapter 1 Migrant Participants Tested, by Subject Area, 1986-87

Puerto Rico

Duplicate Count SY 1986-87

Subject	Elementary Participants	Intermediate Participants	Total Number of Participants Tested
Spanish	860	522	1,382
Mathematics	649	508	1,157
English	309	404	713

RHODE ISLAND

During the regular term, 73 students in pre-kindergarten through grade 12 received migrant education services. Instructional services were provided in English to students of limited English background, reading, and mathematics. Supporting services included attendance, social work, and guidance; health; nutrition; and pupil transportation. Other supporting services were also provided, but were not specified. There were 22 summer term participants in grades 1 through grade 8 and grade 12. Instructional services included reading, language arts, and mathematics. Supporting services included nutrition and pupil transportation.

Based on criterion-referenced measures, participants were tested in reading and mathematics in the summer term. For reading, the Botel Reading Inventory was used. For mathematics, the Scott, Foresman/Radio Shack Test was used, and testing was performed in the following sub-areas--addition, subtraction, multiplication, and division. The results were reported in correlations of grade level to lessons.

No achievement information was provided for the regular term. However, students in Providence (the only district with a regular program) were given the MAT 6 (Metropolitan Achievement Test).

SOUTH CAROLINA

South Carolina's migrant education projects provided services to 74 regular term students in pre-kindergarten through grade 7. Participants received instructional services in reading and mathematics. Preschool participants also received instructional services. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; and library. Summer term services were provided to 679 students in pre-kindergarten through grade 9 and grade 11. The same instructional and supporting services that were offered in the regular term were offered in the summer term.

South Carolina provided pre- and post-test achievement data for reading and mathematics in the regular term. The test used was the Comprehensive Test of Basic Skills (CTBS). Data were reported in NCEs for an annual testing cycle.

Table 69 provides pretest, posttest, and gain NCEs, as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. In reading, gains ranged from 9.6 NCEs (grade 1) to -3.5 NCEs (grade 2). Gains for participants tested in mathematics ranged from 11.0 NCEs (grade 2) to -2.1 NCEs (grade 3).

During the summer term, teacher-judgement tests with respect to criterion-referenced instructional curriculum were used.

Gains in developmental skills were reported for participants who were three and four years old in pre-kindergarten and for participants who were five and six years old in developmental programs during the summer term. The number and percent of participants who "gained," "lost," were "unchanged," and "not judged" were provided by skill area.

Results indicated that most participants, between 94 percent and 60 percent depending on skill area and grade level, gained skills. Less than 1 percent who were tested lost skills. The remaining were "unchanged" or "not judged."

Summer students in grades 1 through 12, who participated in the interstate reading and mathematics programs, were given objectives to master. Three hundred and nine (309) students were evaluated. Objectives mastered ranged from 4.93 (grades 7 through 12, Basic Math Program) to 2.63 (grades 1 through 6, Mathematical Processes Program).

Table 69

Chapter 1 Migrant Education Achievement Results
for Students Tested on an Annual Schedule,
by Subject Area, 1986-87

South Carolina

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	22	47.4	57.0	9.6
2	4	42.5	39.0	-3.5
3	12	45.8	43.6	-2.2
4	--	--	--	--
5	--	--	--	--
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	38			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	22	66.3	69.3	3.0
2	4	53.2	64.2	11.0
3	13	47.9	45.8	-2.1
4	--	--	--	--
5	--	--	--	--
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
Total	39			

SOUTH DAKOTA

The regular term migrant education projects in South Dakota provided services to 64 students in pre-kindergarten through grade 12. Instructional services were provided in reading and mathematics. Regular term preschool participants also received instructional services. There were no supporting services. During the summer term, services were provided to 24 students in pre-kindergarten through grade 10. Summer term participants received the same instructional services as regular term participants. Supporting services included health and pupil transportation.

South Dakota provided pre- and post-test achievement data for reading, mathematics, and language arts. A norm-referenced test the Comprehensive Test of Basic Skills (CTBS) was used. In addition, the Peabody Individual Achievement Test (PIAT) was given to students in grades 1 through 3. Data were reported in NCEs for an annual testing cycle.

Table 70 provides pretest, posttest, and gain NCEs as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. In reading, gains ranged from 14.2 NCEs (grade 1) to -14.7 NCEs (grade 7). In mathematics, gains ranged from 20.1 NCEs (grade 12) to -6.3 NCEs (grade 10). In language arts, gains ranged from 16.7 NCEs (grade 12) to -14.6 NCEs (grade 7).

Preschoolers were administered the Boehm Test of Basic Concept or the Utah Test of Language Development. The Test of Basic Experience II (TOBE) was used to evaluate children who attended the regular district kindergarten program half days.

The summer term project was encouraged to administer teacher-made diagnostic tests. However, no summer achievement information was provided.

Table 70

Chapter 1 Migrant Education Achievement Results for Students Tested on an Annual Schedule, by Subject Area, 1986-87

South Dakota

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	4	37.6	51.8	14.2
2	1	52.1	50.0	-2.1
3	3	53.1	55.3	2.2
4	3	43.7	54.2	10.5
5	1	48.4	57.0	8.6
6	--	--	--	--
7	1	48.4	33.7	-14.7
8	2	32.2	43.1	10.9
9	--	--	--	--
10	1	37.7	34.4	-3.3
11	1	40.1	45.2	5.1
12	1	20.4	23.0	2.6
Total	18			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	4	30.1	40.6	10.5
2	1	46.8	44.7	-2.1
3	3	44.9	37.9	-7.0
4	3	37.1	47.4	10.3
5	1	50.0	56.4	6.4
6	--	--	--	--
7	1	67.0	74.7	7.7
8	2	39.6	31.3	11.7
9	--	--	--	--
10	1	54.2	47.9	-6.3
11	1	36.5	46.3	9.8
12	1	18.9	39.0	20.1
Total	18			

Table 70 (continued)

Language Arts

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	4	34.1	44.4	10.3
2	1	52.1	43.0	-9.1
3	3	48.9	50.3	1.4
4	3	39.9	53.7	13.8
5	1	37.7	42.5	4.8
6	--	--	--	--
7	1	59.3	44.7	-14.6
8	2	39.0	40.7	1.7
9	--	--	--	--
10	1	41.3	45.8	4.5
11	1	48.9	50.5	1.6
12	1	26.3	43.0	16.7
Total	18			

TENNESSEE

Migrant education projects in Tennessee provided services to 114 regular term students in kindergarten through grade 12. Participants received instructional services in reading and mathematics. There were no supporting services. Summer term services were provided to 303 students in pre-kindergarten through grade 10. Instructional services were provided in English to students of limited English background, reading, language, and mathematics. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; and vision.

Two school districts provided achievement data for participants during the regular term. One school district provided pre- and post-test achievement data for reading and mathematics. Data were reported in NCEs for a fall-to-spring testing cycle. Table 71 provides pretest, posttest, and gain NCEs, as well as the number tested, by subject area and grade, for participants tested on a fall-to-spring test cycle. For reading, gains ranged from 35.3 NCEs (grade 1) to -15.6 NCEs (grade 11). For participants tested in mathematics, NCE gains ranged from 26.0 (grade 1) to -15.3 (grade 11).

The second school district used a criterion-referenced test, the Basic Skills First Program, to measure growth during the regular term. Table 72 provides, by grade, the number of students and number of skills acquired for reading and mathematics.

During the summer term, six school districts provided migrant projects. In order to evaluate the programs that were provided for migrant students in the summer, two instruments were used. The Basic Skills First Program was used by three LEAs. The remaining three LEAs used a criterion-referenced test which was developed for the Tennessee Migrant Program. In addition, teacher-made tests were used in measuring progress in the music/art and physical education service areas.

Tables 73 and 74 present the achievement results for the Basic Skills First Program and the Tennessee Migrant Education Criterion-Referenced Test, respectively. The tables display, by grade, the number of participants tested, the range of weeks in the project, and the number of skills mastered for reading, mathematics, and physical education.

Table 71

Chapter 1 Migrant Education Achievement Results for Students Tested on a Fall-Spring Schedule, by Subject Area, 1986-87

Tennessee

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	1	29.1	37.1	8.0
1	5	28.3	63.6	35.3
2	4	25.0	38.6	13.6
3	8	41.9	54.9	13.0
4	9	50.3	58.9	8.6
5	3	39.5	47.7	8.2
6	3	43.3	50.7	7.4
7	9	48.9	46.9	-2.0
8	5	44.0	54.6	10.6
9	2	30.5	37.3	6.8
10	7	23.2	39.9	16.7
11	1	41.9	26.3	-15.6
12	2	9.2	27.6	18.4
Total	59			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
K	1	37.7	57.5	19.8
1	4	47.4	73.4	26.0
2	4	34.9	43.8	8.9
3	8	47.2	53.3	6.1
4	8	53.9	72.4	18.5
5	3	29.7	41.1	11.4
6	3	35.8	60.1	24.3
7	9	38.5	49.4	10.9
8	5	49.0	53.3	4.3
9	2	37.0	48.9	11.9
10	7	34.8	46.0	11.2
11	1	38.3	23.0	-15.3
12	2	15.4	25.1	9.7
Total	57			

Table 72

Achievement Results, Regular Term
Basic Skills First Program, 1986-87

Tennessee

Reading

Grade	Number Tested	Skills Gained		
		Pre	Post	Gain
K	--	--	--	--
1	--	--	--	--
2	4	4.0	8.0	4.0
3	2	8.0	13.0	5.0
4	1	8.0	10.0	2.0
5	3	7.0	10.0	3.0
6	2	10.0	13.0	3.0
Total	12			

Mathematics

Grade	Number Tested	Skills Gained		
		Pre	Post	Gain
K	5	6.0	10.0	4.0
1	3	2.0	4.0	2.0
2	--	--	--	--
3	2	1.0	3.0	2.0
4	1	3.0	4.0	1.0
5	3	3.0	6.0	3.0
6	2	6.0	7.0	1.0
Total	16			

Table 73

Skills Mastered (Weighted Mean) on the Basic Skills First Program, Summer Term, 1987

Tennessee

	Reading		Mathematics	
Weeks in Program:	3-6		3-6	
Grade	Number Tested	Skills	Number Tested	Skills
K	4	2.5	4	1.3
1	8	7.9	8	6.4
2	20	9.7	20	10.4
3	23	4.9	20	8.6
4	23	2.7	23	3.8
5	20	4.0	20	3.9
6	17	2.1	17	2.5
7	3	2.0	8	2.9
8	4	2.0	4	4.0
9	2	4.0	2	8.0
10	--	--	--	--
Total	124		126	

Table 74

Skills Mastered (Weighted Mean) on the Tennessee Migrant Education Criterion-Referenced Test, Summer Term, 1987

Tennessee

	Reading				Mathematics				P.E.			
Weeks in Programs:	3-6		6-9		3-6		6-9		3-6		6-9	
Grade	Number Tested	Skills	Number Tested	Skills	Number Tested	Skills	Number Tested	Skills	Number Tested	Skills	Number Tested	Skills
Pre K	2	2.0	--	--	2	4.0	--	--	--	--	--	--
K	4	1.5	1	7.0	4	3.5	1	2.0	2	7.0	1	10.0
1	32	1.8	1	6.0	29	2.0	1	5.0	2	12.0	1	10.0
2	19	2.3	3	4.0	23	3.8	--	--	--	--	3	8.0
3	19	2.3	2	4.0	19	2.3	2	4.0	2	9.0	3	10.0
4	17	1.7	--	--	17	3.1	--	--	1	5.0	1	10.0
5	12	1.6	--	--	5	2.8	--	--	1	6.0	--	--
6	2	1.5	--	--	2	3.0	--	--	2	6.0	1	13.0
7	1	1.0	--	--	2	2.0	--	--	1	7.0	--	--
8	2	2.0	--	--	2	3.5	--	--	--	--	--	--
9	2	2.0	1	5.0	2	2.5	1	5.0	--	--	1	11.0
10	1	2.0	--	--	1	4.0	--	--	--	--	--	--
11			--	--	--	--	--	--	--	--	--	--
12			--	--	--	--	--	--	--	--	--	--
Total	113		8		108		5		11		11	

TEXAS

Migrant education projects in Texas served 63,733 regular term students and 3,350 summer term students in pre-kindergarten through grade 12. Participants in both terms received English to students of limited English background, reading, language arts, and mathematics. Other instructional services were also provided, but were not specified. Regular term participants received vocational/career education. For both terms, supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. In both terms, other supporting services were provided, but were not specified.

Texas provided pre- and post-test achievement data for reading and mathematics for the regular term. Data were reported in NCEs for an annual testing cycle.

Table 75 provides pretest, posttest, and gain NCEs, as well as the number tested, by subject area and grade, for participants tested on an annual test cycle. Participants tested in reading showed gains ranging from 2.3 NCEs (grade 7) to -1.1 NCEs (grade 2). In mathematics, NCE gains ranged from 5.2 (grade 2) to -0.9 (grade 8).

In 1986-87 the following questions were asked of the teachers of summer term participants:

1) How many students would have failed by not going to summer school?

2) How many passed because of summer school?

However, the teachers did not think these questions were a good way to measure program outcomes for the summer term. They felt they were being evaluated on what they did not do. For the 1988 summer term, indicators will be changed to measure how many essential elements were taught, by grade, and how many were mastered.

Table 75

Chapter 1 Migrant Education Achievement Results for Students Tested on an Annual Schedule, by Subject Area, 1986-87

Texas

Reading

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	2,129	39.3	38.2	-1.1
3	2,907	35.5	37.7	2.2
4	2,933	35.2	37.2	2.0
5	2,647	35.2	36.0	0.8
6	2,844	34.5	36.7	2.2
7	2,846	33.1	35.4	2.3
8	2,690	34.9	36.0	1.1
9	1,762	34.3	36.1	1.8
10	1,262	33.7	33.4	-0.3
11	892	31.6	33.2	1.6
12	685	34.0	34.0	0.0
Total	23,597			

Mathematics

Grade	Number Tested	NCE		
		Pretest	Posttest	Gain
1	--	--	--	--
2	1,176	44.5	49.7	5.2
3	1,868	44.5	46.8	2.3
4	1,911	40.6	44.7	4.1
5	1,654	43.3	45.9	2.6
6	1,747	41.3	44.7	3.4
7	1,473	39.9	43.5	3.6
8	1,334	42.6	41.7	-0.9
9	750	38.8	40.6	1.8
10	524	40.7	42.5	1.8
11	397	39.5	41.4	1.9
12	287	40.2	41.8	1.6
Total	13,121			

UTAH

Utah's migrant education projects served 58 regular term students in pre-kindergarten through grade 12. Participants received instructional services in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Supporting services included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation. During the summer term, 686 students in pre-kindergarten through grade 12 received services. Participants in the summer term received the same instructional and supporting services as participants in the regular term. In addition, summer term participants also received the following supporting services: social studies, science, art, physical education, music, computer, field trips, and library.

The Wide Range Achievement Test (WRAT) was used during the summer term. The WRAT is a norm-referenced test. Participants were tested in reading, spelling, and arithmetic. Data were reported as raw scores.

Table 76 provides average raw pretest scores, average raw posttest scores, and the difference between pre-post raw scores, as well as the number tested, by subject area and grade, for participants tested during the summer of 1987. For reading, raw gains ranged from 10.7 (grade 9) to 2.9 (grade 5). For spelling, raw gains ranged from 6.3 (grade 8) to 0.0 (grade 11). For arithmetic, raw gains ranged from 7.0 (grade 10) to -0.3 (grade 9).

Achievement information was not provided for the regular term. However, program outcomes for the regular term were determined by the test used by the regular school district. The SEA has exempted the Provo program from WRAT testing.

Table 76

WRAT-R Data for the Migrant Education Program,
by Subject Area, Summer 1987

Utah

Reading

Grade	Number of Students Who Took Post-Test	Pre-test Average Raw Scores	Post-test Average Raw Scores	Difference Between Pre-Post Raw Scores
Pre-K	12	9.1	12.1	3.0
K	62	15.9	19.8	3.9
1	67	37.4	42.3	4.9
2	47	47.7	51.2	3.5
3	42	56.1	60.2	4.1
4	40	60.7	66.1	5.4
5	39	62.0	64.9	2.9
6	14	49.0	54.6	5.6
7	11	40.8	46.7	5.9
8	5	50.8	57.0	6.2
9	2	55.3	66.0	10.7
10	1	45.0	50.0	5.0
11	2	28.0	34.5	6.5
12	--	--	--	--
Total	344			

Table 76 (continued)

Spelling

Grade	Number of Students Who Took Post-Test	Pre-test Average Raw Scores	Post-test Average Raw Scores	Difference Between Pre-Post Raw Scores
Pre-K	12	12.0	12.9	0.9
K	62	14.2	16.7	2.5
1	67	25.6	29.7	4.1
2	47	29.8	33.1	3.3
3	42	35.1	37.2	2.1
4	40	38.4	39.0	0.6
5	39	39.2	41.5	2.3
6	14	27.0	29.9	2.9
7	11	20.5	22.6	2.1
8	5	24.3	30.6	6.3
9	2	28.5	29.5	1.0
10	1	27.0	32.0	5.0
11	2	11.0	11.0	0.0
12	--	--	--	--
Total	344			

Table 76 (continued)

Arithmetic

Grade	Number of Students Who Took Post-Test	Pre-test Average Raw Scores	Post-test Average Raw Scores	Difference Between Pre-Post Raw Scores
Pre-K	12	5.2	5.8	0.6
K	62	9.0	10.9	1.9
1	67	16.8	19.2	2.4
2	47	20.6	22.1	1.5
3	42	23.8	25.3	1.5
4	40	26.9	28.2	1.3
5	39	29.8	29.9	0.1
6	14	27.1	31.1	4.0
7	11	28.6	30.5	1.9
8	5	28.2	30.8	2.6
9	2	31.8	31.5	-0.3
10	1	29.0	36.0	7.0
11	2	16.5	21.5	5.0
12	--	--	--	--
Total	344			

VERMONT

Vermont's migrant education projects provided services to 653 regular students in pre-kindergarten through grade 12. Instructional services were provided in reading, vocational/career education, and oral history. Supporting services included attendance, social work, and guidance; health; dental; nutrition; pupil transportation; and book distribution. The summer term projects served 228 students in pre-kindergarten through grade 12 (excluding grade 11). Instructional services included reading and mathematics. The supporting services provided during the regular term were also provided during the summer term. Additionally, social skills were provided during the summer term.

No achievement information was provided. Achievement data will be submitted for 1989-90, including a sustained effects report.

VIRGINIA

The migrant education projects in Virginia provided services to 589 regular term students in pre-kindergarten through grade 12. Services were also provided to 304 summer term students in pre-kindergarten through grade 8. For both terms, instructional services were provided in English to students of limited English background, reading, language arts, and mathematics. Other instructional services were also provided, but were not specified. Regular term participants also received vocational/career education. Supporting services provided during the regular term included attendance, social work, and guidance; nutrition; and pupil transportation. Summer term supporting services included those found in the regular term plus health and dental.

No achievement data were provided for either the regular term or the summer term.

WASHINGTON

Migrant education projects in Washington served 8,210 regular term students and 2,405 summer term students in pre-kindergarten through grade 12. In both terms, instructional services were provided in English to students of limited English background, reading, language arts, mathematics, and readiness. Supporting services provided during both terms included attendance, social work, and guidance; health; dental; nutrition; and pupil transportation.

School districts in Washington submitted pre- and posttest achievement data for reading, mathematics, and language arts for the regular term. Only seven grade groups had ten or more students tested. (The total number tested was 95 in reading and 90 in mathematics.) According to the Washington SEA, with these low numbers per grade, the amount of measurement error was substantial. For this reason and because the data were not representative of the students served, SEA officials requested that the data not be released publicly.

Washington has a statewide assessment program. The Metropolitian Achievement Test (MAT6) was administered to all students in grades 4, 8, and 10 during the first week in October. Students were tested in reading, mathematics, language, and oral language. State-level results were prepared for the general student population and for selected student subgroups, such as students participating in Chapter 1 migrant education projects. Administrators coded student participation by special program and by the subject area of service.

The results were reported in two ways for each grade level: the percentages of migrant education students scoring above average, average, or below average on each MAT6 subtest compared to the national norm group and the median national percentile rank of all Washington students on each MAT6 subtest. Table 77 presents the percentage of participants in each stanine group by grade and subject area. The number of participants tested was not reported. On the whole, there was a larger percentage of participants in the average and above average categories in mathematics than in reading and language.

No achievement data were presented for the summer term. The districts determined how program outcomes were measured for the summer term.

Table 77

MAT6 Test Results for Chapter 1 Migrant Participants by Test Subject Area, 1986-87

Washington

Reading

	Percent in Each Stanine Group		
Grade	Above Average	Average	Below Average
4	2%	31%	67%
8	2%	19%	79%
10	4%	24%	72%

Mathematics

	Percent in Each Stanine Group		
Grade	Above Average	Average	Below Average
4	2%	55%	43%
8	3%	35%	62%
10	4%	48%	48%

Language

	Percent in Each Stanine Group		
Grade	Above Average	Average	Below Average
4	1%	38%	61%
8	4%	32%	64%
10	2%	27%	71%

WEST VIRGINIA

During the regular term, migrant education projects in West Virginia served 72 students in kindergarten through grade 10. Instructional services were provided in reading and mathematics. Supporting services included attendance, social work, and guidance; pupil transportation; and clothing. Forty-four students in pre-kindergarten through ninth grade (with the exception of fifth and sixth grades) were provided services during the summer term. Participants in the summer term received the following instructional services: English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Other instructional services were also provided, but were not specified. Supporting services included attendance, social work, and guidance; health; nutrition; and pupil transportation.

No achievement data were provided for either the regular term or the summer term.

WISCONSIN

Wisconsin's migrant education projects provided services to 759 regular term students and 606 summer term students in pre-kindergarten through grade 12. In both terms, participants received services in reading/language arts (English and Spanish), oral language, mathematics, vocational/career education, science, social studies, cultural development/self image, physical education, health/nutrition, fine arts, practical arts/survival skills, music/dance, computer literacy, CAI in basic skills, alcohol and drug abuse prevention, protective behaviors, and other basic study skills. During the regular term, supporting services were provided in attendance, social work, and guidance; dental; nutrition; and pupil transportation. During the summer term, attendance, social work, and guidance; health; dental; and pupil transportation were provided.

For regular term participants, Wisconsin used locally-developed end-of-course criterion-referenced tests (textbook, semester exam, etc.). Wisconsin was starting to administer norm-referenced testing for regular term participants (formerly migrant only). However, the results were not yet available.

Table 78 provides the number of regular term participants receiving instructional services and the percent of participants meeting the criterion of success, by instructional activity. Percent successful ranged from 100 percent (fine arts, practical arts/survival skills, music/dance, and computer literacy) to 79 percent (reading/language arts-English).

For summer term participants, Wisconsin used locally-developed objectives mastered tests. A pilot of a competency-based framework was used.

Table 79 provides the number of summer term participants receiving instructional services, number of students served in competency framework, and number of objectives mastered, by instructional activity. The number of students who mastered at least one objective ranged from 85 (mastered 1-2 objectives in mathematics) to 19 (mastered 3-4 objectives in language arts).

Table 78

Achievement Results for Migrant Participants from Locally-Developed Criterion Testing, by Instructional Activity, 1986-87

Wisconsin

Instructional Activity	Students Served PreK-12	
	Number Tested	Percent Successful*
Reading/Language Arts (English)	525	79
Reading/Language Arts (Spanish)	51	98
English Oral Language	423	84
Mathematics	491	85
Career Education	31	93
Science	295	82
Social Studies	299	83
Cultural Development/Self-Image	238	98
Physical Education	284	99
Health/Nutrition	173	93
Fine Arts	175	100
Practical Arts/Survival Skills	20	100
Music/Dance	223	100
Computer Literacy	38	100
Total	3,266	

* Criterion of success is one month's growth per one month's instruction.

Table 79

Achievement Results for Migrant Participants from Locally-Developed Testing, by Instructional Activity, Summer 1987

Wisconsin

Instructional Activity	Total Students Served PreK-12	Students Served in Competency Framework*	Number of Objectives Mastered** 0	1-2	3-4	5+
Reading	433	388	252	74	22	40
Language Arts	360	292	170	77	19	26
English Oral Language	398	299	173	69	22	35
Mathematics	513	388	198	85	34	71
Science	243					
Social Studies	166					
Cultural Heritage/Self-Image	372					
Physical Education	350					
Swimming Instruction	128					
Health/Nutrition	361					
Fine Arts	258					
Practical Arts/Survival Skills	206					
Music/Dance	139					
Career Education	61					
Computer Literacy	324					
CAI in Basic Skills	256					
Other (Alcohol and Other Drug Abuse, Protective Behaviors)	80					
Total	2,944					

* The majority of these students were in grades 1-6. Most students in grades 7-12 were served by Portable Assisted Study Sequence (PASS)/Mini-PASS. Most Pre-K and K students were enrolled in early childhood developmental instruction.

** The criterion for success on an objective for an individual student was 80 percent correct on a criterion-referenced test. Program-wide criteria for success during the summer term of service of 4-5 weeks will be established as the competency-based framework is further implemented.

WYOMING

Wyoming's summer term migrant education projects served 545 students in pre-kindergarten through grade 12. Participants received services in English to students of limited English background, reading, language arts, mathematics, and vocational/career education. Instructional services were also provided to handicapped students. Supporting services included attendance, social work, and guidance; health; nutrition; and pupil transportation. There were no regular term projects.

In 1986-87, Wyoming had a summer migrant education program with one five-week program and two six-week programs. All three sites used the National Migrant Education Skills Program for each individual student. The objective at all three sites was to have each student accomplish at least 1 skill for each two days of attendance. No quantitative data were reported.

APPENDIX A -- METHODOLOGY

The U.S. Department of Education (ED) received State Performance Reports for 1986-87 in the winter and early spring of 1988, and proceeded to enter the participation information into LOTUS 1-2-3 files.

Decision Resources Corporation (DRC), contracted by the Office of Planning, Budget, and Evaluation (OPBE) to review, correct, and summarize the State Performance Reports, performed edit checks on the participation information and reviewed the achievement information provided by the SEAs. The purpose of the edit checks was to flag potential problems, not to claim that the information was necessarily in error.

The edit process for the participation data focused on examining the information submitted for 1985-86 and 1986-87, and highlighting year-to-year changes that appeared to be unusually high.

DRC subsequently prepared state-by-state listings of the information submitted by the SEAs, highlighting any data items that were identified through the edit process, and sent them to the SEAs for their review.

DRC staff then placed telephone calls to each SEA to elicit their response. In several instances, SEAs revised data for either 1985-86 or 1986-87.[11] However, in most cases, either the SEA responded that the information had been reviewed and was correct, or the SEA offered explanations for data items highlighted by the review process.

For the achievement data, SEAs were asked to verify or clarify DRC staff's understanding of the information that had been provided to ED.

At the conclusion of this process, DRC entered the revisions into the Chapter 1 migrant education data base and produced two documents for ED--a State Feedback Report for each SEA and this summary report entitled A Summary of State Chapter 1 Migrant Education Program Participation and Achievement Information for 1986-1987, Volume 1: Participation and Volume 2: Achievement.

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[11]To the extent states revised their figures, the numbers found in this report will not correspond with those found in previous documents displaying State Performance Report information.

APPENDIX B -- ACHIEVEMENT INFORMATION FOR STATES REPORTING PRE/POST NORM REFERENCED NORMAL CURVE EQUIVALENT RESULTS, BY GRADE AND STATE

This appendix presents tabular displays of achievement information by grade for those states that provided data for the regular term using a norm referenced pre/post model and normal curve equivalent results. For each grade, the number tested, the pretest NCE score, the pretest percentile, the posttest NCE score, the posttest percentile, and the gain NCE are presented.

The tables are provided in the following order:

- Table B.1 -- participants tested on an annual test cycle in reading;
- Table B.2 -- participants tested on an annual test cycle in mathematics;
- Table B.3 -- participants tested on a fall-spring test cycle in reading; and
- Table B.4 -- participants tested on a fall-spring test cycle in mathematics.

Table B.1

Chapter 1 Migrant Education Reading Achievement Results for Students Tested on an Annual Schedule--1986-87

Kindergarten

State	Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
CALIFORNIA	-	-	-	-	-	-
COLORADO	-	-	-	-	-	-
FLORIDA	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	-	-	-	-	-	-
NEVADA	-	-	-	-	-	-
NEW JERSEY	-	-	-	-	-	-
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	6	9.8	2	25.9	12	16.1
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	-	-	-	-	-	-
TEXAS	-	-	-	-	-	-
TOTAL	6	9.8	2	25.9	12	16.1

State	Grade 1 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	26	55.9	61	46.8	44	-9.1
CALIFORNIA	-	-	-	-	-	-
COLORADO	15	31.1	17	34.0	22	2.9
FLORIDA	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	-	-	-	-	-	-
NEVADA	-	-	-	-	-	-
NEW JERSEY	35	33.4	21	42.1	35	8.7
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	16	55.8	60	53.2	56	-2.6
PENNSYLVANIA	10	20.3	7	45.2	41	24.9
SOUTH CAROLINA	22	47.4	45	57.0	62	9.6
SOUTH DAKOTA	4	37.6	27	51.8	53	14.2
TEXAS	-	-	-	-	-	-
TOTAL	128	42.0	35	46.6	43	4.6

State	Grade 2 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	49	49.8	49	41.0	33	-8.8
CALIFORNIA	1,591	31.9	19	33.5	21	1.6
COLORADO	15	39.5	30	40.8	33	1.3
FLORIDA	389	37.3	27	36.0	25	-1.3
IDAHO	53	41.9	35	38.2	28	-3.7
MAINE	26	56.5	62	54.0	57	-2.5
MISSISSIPPI	61	34.4	23	49.1	48	14.7
NEVADA	29	32.0	19	35.7	24	3.7
NEW JERSEY	42	44.0	38	46.6	42	2.6
NEW MEXICO	1	43.0	37	57.0	62	14.0
OKLAHOMA	29	51.6	53	49.3	48	-2.3
PENNSYLVANIA	7	32.7	20	19.3	7	-13.4
SOUTH CAROLINA	4	42.5	36	39.0	30	-3.5
SOUTH DAKOTA	1	52.1	54	50.0	50	-2.1
TEXAS	2,129	39.3	30	38.2	28	-1.1
TOTAL	4,426	36.7	26	36.7	26	0.0

Table B.1 (continued)

State	Grade 3 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	50	49.0	48	47.7	45	-1.3
CALIFORNIA	1,712	30.5	17	33.5	21	3.0
COLORADO	15	39.8	31	38.1	28	-1.7
FLORIDA	506	34.0	22	35.3	24	1.3
IDAHO	36	34.4	23	37.7	28	3.3
MAINE	52	47.6	45	49.4	48	1.8
MISSISSIPPI	52	44.1	39	52.2	54	8.1
NEVADA	24	41.7	34	40.5	32	-1.2
NEW JERSEY	36	39.0	30	44.4	39	5.4
NEW MEXICO	5	34.4	23	41.8	34	7.4
OKLAHOMA	16	54.1	57	48.6	47	-5.5
PENNSYLVANIA	24	21.9	9	33.6	21	11.7
SOUTH CAROLINA	12	45.8	42	43.6	38	-2.2
SOUTH DAKOTA	3	53.1	55	55.3	60	2.2
TEXAS	2,907	35.5	24	37.7	28	2.2
TOTAL	5,450	34.2	22	36.6	26	2.4

State	Grade 4 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	58	46.2	42	46.0	42	-0.2
CALIFORNIA	2,036	32.0	19	34.5	23	2.5
COLORADO	12	32.7	20	38.7	29	6.0
FLORIDA	434	37.1	27	36.7	26	-0.4
IDAHO	57	40.2	32	39.4	30	-0.8
MAINE	37	51.3	52	49.5	49	-1.8
MISSISSIPPI	41	43.7	38	47.8	45	4.1
NEVADA	14	39.3	30	43.1	37	3.8
NEW JERSEY	32	37.7	28	39.9	31	2.2
NEW MEXICO	18	36.6	26	39.3	30	2.7
OKLAHOMA	19	44.6	39	49.7	49	5.1
PENNSYLVANIA	13	27.0	13	25.4	12	-1.6
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	3	43.7	38	54.2	58	10.5
TEXAS	2,933	35.2	24	37.2	27	2.0
TOTAL	5,707	34.6	23	36.5	26	1.9

State	Grade 5 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	60	42.6	36	43.5	37	0.9
CALIFORNIA	1,957	33.1	21	34.3	22	1.2
COLORADO	7	38.9	29	33.8	22	-5.1
FLORIDA	459	34.6	23	34.3	22	-0.3
IDAHO	49	45.3	41	39.0	30	-6.3
MAINE	31	47.1	44	48.0	46	0.9
MISSISSIPPI	54	60.0	68	61.6	69	1.6
NEVADA	3	40.2	32	44.8	40	4.6
NEW JERSEY	22	44.0	38	43.8	38	-0.2
NEW MEXICO	25	31.4	17	34.6	23	3.2
OKLAHOMA	11	38.3	29	36.8	26	-1.5
PENNSYLVANIA	12	29.0	15	36.2	25	7.2
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	1	48.4	47	57.0	62	8.6
TEXAS	2,647	35.2	24	36.0	25	0.8
TOTAL	5,338	34.9	23	35.7	24	0.8

Table B.1 (continued)

State	Grade 6 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	53	48.2	46	47.2	44	-1.0
CALIFORNIA	1,929	32.4	20	36.1	25	3.7
COLORADO	9	39.7	31	38.7	29	-1.0
FLORIDA	419	31.8	19	33.4	21	1.6
IDAHO	26	35.7	24	33.1	21	-2.6
MAINE	43	46.0	42	47.6	45	1.6
MISSISSIPPI	33	42.2	35	44.0	38	1.8
NEVADA	8	30.6	17	30.1	17	-0.5
NEW JERSEY	37	36.7	26	40.5	32	3.8
NEW MEXICO	18	34.5	23	33.2	21	-1.3
OKLAHOMA	19	41.9	35	45.9	42	4.0
PENNSYLVANIA	8	18.1	6	23.8	10	5.7
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	-	-	-	-	-	-
TEXAS	2,844	34.5	23	36.7	26	2.2
TOTAL	5,446	33.8	22	36.5	26	2.7

State	Grade 7 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	88	36.7	26	38.3	29	1.6
CALIFORNIA	1,370	33.5	21	35.6	24	2.1
COLORADO	9	26.2	12	28.6	15	2.4
FLORIDA	133	28.4	15	31.6	19	3.2
IDAHO	16	24.1	10	19.0	7	-5.1
MAINE	46	47.4	45	50.8	51	3.4
MISSISSIPPI	27	38.2	28	44.2	39	6.0
NEVADA	12	29.1	16	35.9	25	6.8
NEW JERSEY	20	41.0	33	47.3	44	6.3
NEW MEXICO	11	25.0	11	38.0	28	13.0
OKLAHOMA	17	50.9	51	50.2	50	-0.7
PENNSYLVANIA	-	28.3	15	29.8	16	1.5
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	1	48.4	47	33.7	22	-14.7
TEXAS	2,846	33.1	21	35.4	24	2.3
TOTAL	4,596	33.4	21	35.7	24	2.3

State	Grade 8 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	47	37.6	27	41.5	34	3.9
CALIFORNIA	1,188	33.1	21	34.0	22	0.9
COLORADO	8	25.7	12	29.3	16	3.6
FLORIDA	72	29.9	17	31.1	17	1.2
IDAHO	4	51.8	53	40.8	33	-11.0
MAINE	23	54.9	59	52.6	55	-2.3
MISSISSIPPI	6	49.0	48	57.0	62	8.0
NEVADA	7	29.7	16	32.4	20	2.7
NEW JERSEY	25	33.9	22	35.8	25	1.9
NEW MEXICO	10	35.0	23	34.0	22	-1.0
OKLAHOMA	23	43.2	37	50.1	50	6.9
PENNSYLVANIA	4	14.8	4	15.2	4	0.4
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	2	32.2	19	43.1	37	10.9
TEXAS	2,690	34.9	23	36.0	25	1.1
TOTAL	4,109	34.5	23	35.6	24	1.1

Table B.1 (continued)

State	Grade 9 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	21	32.8	20	34.2	22	1.4
CALIFORNIA	518	29.6	16	28.7	15	-0.9
COLORADO	2	24.7	11	26.2	12	1.5
FLORIDA	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	6	36.9	26	41.3	34	4.4
NEVADA	-	-	-	-	-	-
NEW JERSEY	19	41.8	34	52.4	54	10.6
NEW MEXICO	10	32.0	19	30.0	17	-2.0
OKLAHOMA	13	45.6	41	41.8	34	-3.8
PENNSYLVANIA	3	36.8	26	39.1	30	2.3
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	-	-	-	-	-	-
TEXAS	1,762	34.3	22	36.1	25	1.8
TOTAL	2,354	33.4	21	34.6	23	1.2

State	Grade 10 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	27	39.1	30	37.0	26	-2.1
CALIFORNIA	416	29.3	16	29.2	16	-0.1
COLORADO	7	27.3	14	29.7	16	2.4
FLORIDA	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	17	30.5	17	41.8	34	11.3
NEVADA	-	-	-	-	-	-
NEW JERSEY	15	35.9	25	49.5	49	13.6
NEW MEXICO	1	28.0	14	32.0	19	4.0
OKLAHOMA	13	49.0	48	44.1	39	-4.9
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	1	37.7	28	34.4	23	-3.3
TEXAS	1,262	33.7	22	33.4	21	-0.3
TOTAL	1,759	32.8	20	32.7	20	-0.1

State	Grade 11 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	16	33.3	21	32.3	20	-1.0
CALIFORNIA	287	28.1	14	30.8	17	2.7
COLORADO	3	32.6	20	33.5	21	0.9
FLORIDA	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	4	33.4	21	31.1	17	-2.3
NEVADA	-	-	-	-	-	-
NEW JERSEY	10	43.7	38	43.5	37	-0.2
NEW MEXICO	1	51.0	51	55.0	59	4.0
OKLAHOMA	10	41.2	33	43.4	37	2.2
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	1	40.1	32	45.2	41	5.1
TEXAS	892	31.6	19	33.2	21	1.6
TOTAL	1,224	31.0	18	32.8	20	1.8

Table B.1 (continued)

State	Grade 12 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	10	24.4	11	26.6	13	2.2
CALIFORNIA	158	27.8	14	24.9	11	-2.9
COLORADO	4	20.5	8	23.3	10	2.8
FLORIDA	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	2	43.0	37	52.0	53	9.0
NEVADA	-	-	-	-	-	-
NEW JERSEY	1	25.0	11	21.0	8	-4.0
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	5	52.4	54	51.7	53	-0.7
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	1	20.4	8	23.0	10	2.6
TEXAS	685	34.0	22	34.0	22	0.0
TOTAL	866	32.8	20	32.3	20	-0.5

Table B.2

Chapter 1 Migrant Education Mathematics Achievement Results for Students Tested on an Annual Schedule--1986-87

Kindergarten

State	Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
CALIFORNIA	-	-	-	-	-	-
COLORADO	-	-	-	-	-	-
FLORIDA	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	-	-	-	-	-	-
NEVADA	-	-	-	-	-	-
NEW JERSEY	-	-	-	-	-	-
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	6	2.7	1	17.5	6	14.8
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	-	-	-	-	-	-
TEXAS	-	-	-	-	-	-
TOTAL	6	2.7	1	17.5	6	14.8

Grade 1

State	Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	26	63.5	74	56.4	62	-7.1
CALIFORNIA	-	-	-	-	-	-
COLORADO	15	31.2	17	35.4	24	4.2
FLORIDA	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	-	-	-	-	-	-
NEVADA	-	-	-	-	-	-
NEW JERSEY	35	40.4	32	51.1	52	10.7
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	9	41.3	34	45.4	41	4.1
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	22	66.3	78	69.3	82	3.0
SOUTH DAKOTA	4	30.1	17	40.6	32	10.5
TEXAS	-	-	-	-	-	-
TOTAL	111	49.4	48	53.0	55	3.6

Grade 2

State	Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	103	51.0	51	52.0	53	1.0
CALIFORNIA	1,569	45.9	42	46.4	42	0.5
COLORADO	15	43.8	38	47.2	44	3.4
FLORIDA	79	37.2	27	47.2	44	10.0
IDAHO	32	41.5	34	49.8	49	8.3
MAINE	26	58.0	62	58.9	66	0.9
MISSISSIPPI	25	25.7	12	64.4	75	38.7
NEVADA	20	41.8	34	44.7	40	2.9
NEW JERSEY	42	44.8	40	47.8	45	3.0
NEW MEXICO	9	33.7	22	51.0	51	17.3
OKLAHOMA	46	51.8	53	53.4	56	1.6
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	4	53.2	56	64.2	75	11.0
SOUTH DAKOTA	1	46.8	44	44.7	40	-2.1
TEXAS	1,176	44.5	39	49.7	49	5.2
TOTAL	3,147	45.2	41	48.3	46	3.1

Table B.2 (continued)

State	Grade 3 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	124	59.3	67	49.3	48	-10.0
CALIFORNIA	1,647	43.5	37	43.1	37	-0.4
COLORADO	15	42.2	35	43.4	37	1.2
FLORIDA	60	32.1	19	41.9	35	9.8
IDAHO	45	42.6	36	40.5	32	-2.1
MAINE	44	46.8	44	49.0	48	2.2
MISSISSIPPI	15	41.4	34	60.5	69	19.1
NEVADA	26	44.0	38	50.8	51	6.8
NEW JERSEY	34	43.6	38	51.3	52	7.7
NEW MEXICO	7	28.9	15	37.3	27	8.4
OKLAHOMA	35	38.8	29	49.6	49	10.8
PENNSYLVANIA	7	39.1	30	47.7	45	8.6
SOUTH CAROLINA	13	47.9	46	45.8	42	-2.1
SOUTH DAKOTA	3	44.9	40	37.9	28	-7.0
TEXAS	1,868	44.5	39	46.8	44	2.3
TOTAL	3,943	44.3	39	45.3	41	1.0

State	Grade 4 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	125	45.6	41	46.3	42	0.7
CALIFORNIA	1,933	41.1	33	43.2	37	2.1
COLORADO	21	39.3	30	41.3	34	2.0
FLORIDA	76	35.1	24	45.7	41	10.6
IDAHO	38	43.7	38	39.6	31	-4.1
MAINE	33	48.0	46	50.7	51	2.7
MISSISSIPPI	12	29.9	17	43.3	37	13.4
NEVADA	14	51.5	52	53.3	56	1.8
NEW JERSEY	32	44.0	38	44.5	39	0.5
NEW MEXICO	11	34.6	23	35.1	24	0.6
OKLAHOMA	45	42.9	36	45.4	41	2.5
PENNSYLVANIA	7	42.5	36	48.6	47	6.1
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	3	37.1	27	47.4	45	10.3
TEXAS	1,911	40.6	32	44.7	40	4.1
TOTAL	4,261	41.0	33	44.1	39	3.1

State	Grade 5 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	143	49.5	49	52.0	53	2.5
CALIFORNIA	1,896	41.6	34	44.5	39	2.9
COLORADO	8	47.1	44	48.4	47	1.3
FLORIDA	64	36.4	25	38.4	29	2.0
IDAHO	38	43.4	37	41.6	34	-1.8
MAINE	34	43.7	38	48.0	46	4.3
MISSISSIPPI	19	44.4	39	49.2	48	4.8
NEVADA	7	52.4	54	52.2	54	-0.2
NEW JERSEY	21	47.9	46	47.4	45	-0.5
NEW MEXICO	21	36.4	25	41.8	34	5.4
OKLAHOMA	30	38.8	29	37.5	27	-1.3
PENNSYLVANIA	4	37.7	28	44.6	39	6.9
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	1	50.0	50	56.4	62	6.4
TEXAS	1,654	43.3	37	45.9	42	2.6
TOTAL	3,940	42.6	36	45.3	41	2.7

Table B.2 (continued)

State	Grade 6 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	128	48.4	47	48.1	46	-0.3
CALIFORNIA	1,901	42.3	35	45.2	41	2.9
COLORADO	8	52.5	54	51.9	53	-0.6
FLORIDA	37	34.7	23	34.2	22	-0.5
IDAHO	17	36.9	26	31.9	19	-5.0
MAINE	46	45.1	40	44.0	38	-1.1
MISSISSIPPI	18	47.7	45	37.7	28	-10.0
NEVADA	11	45.9	42	42.7	36	-3.2
NEW JERSEY	34	48.5	47	51.8	53	3.3
NEW MEXICO	20	37.2	27	33.0	21	-4.2
OKLAHOMA	32	42.3	35	41.7	34	-0.6
PENNSYLVANIA	3	34.6	23	40.8	33	6.2
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	-	-	-	-	-	-
TEXAS	1,747	41.3	34	44.7	40	3.4
TOTAL	4,002	42.1	35	44.8	40	2.7

State	Grade 7 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	81	44.6	39	40.6	32	-4.0
CALIFORNIA	1,307	42.6	36	45.5	41	2.9
COLORADO	8	25.3	12	32.5	20	7.2
FLORIDA	39	32.0	19	36.1	25	4.1
IDAHO	6	17.4	6	20.7	8	3.3
MAINE	39	41.0	33	44.7	40	3.7
MISSISSIPPI	11	43.3	37	51.3	52	8.0
NEVADA	14	29.8	16	35.5	24	5.7
NEW JERSEY	20	50.6	51	55.1	59	4.5
NEW MEXICO	23	29.8	16	37.8	28	8.0
OKLAHOMA	27	44.9	40	47.3	44	2.4
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	1	67.0	79	74.7	88	7.7
TEXAS	1,473	39.9	31	43.5	37	3.6
TOTAL	3,049	41.0	33	44.2	39	3.2

State	Grade 8 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	41	45.4	41	43.1	37	-2.3
CALIFORNIA	1,113	43.9	38	43.7	38	-0.2
COLORADO	5	32.7	20	38.5	29	5.8
FLORIDA	-	-	-	-	-	-
IDAHO	7	33.3	21	31.6	19	-1.7
MAINE	23	52.9	55	50.0	50	-2.9
MISSISSIPPI	6	41.0	33	52.9	55	11.9
NEVADA	8	31.7	19	44.0	38	12.3
NEW JERSEY	24	36.5	26	45.5	41	9.0
NEW MEXICO	11	42.2	35	32.5	20	-9.7
OKLAHOMA	33	44.0	38	44.6	39	0.6
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	2	39.6	31	51.3	52	11.7
TEXAS	1,334	42.6	36	41.7	34	-0.9
TOTAL	2,607	43.2	37	42.7	36	-0.5

Table B.2 (continued)

State	Grade 9 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	29	39.3	30	42.3	35	3.0
CALIFORNIA	486	40.2	32	41.0	33	0.8
COLORADO	1	38.2	28	39.6	31	1.4
FLORIDA	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	-	-	-	-	-	-
NEVADA	-	-	-	-	-	-
NEW JERSEY	17	44.0	38	51.0	51	7.0
NEW MEXICO	10	36.1	25	35.0	23	-1.1
OKLAHOMA	11	45.7	41	47.4	45	1.7
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	-	-	-	-	-	-
TEXAS	750	38.8	29	40.6	32	1.8
TOTAL	1,304	39.4	30	40.9	33	1.5

State	Grade 10 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	30	39.6	31	41.8	34	2.2
CALIFORNIA	428	40.5	32	40.7	33	0.2
COLORADO	5	45.0	40	42.0	35	-3.0
FLORIDA	-	-	-	-	-	-
IDAHO	1	13.0	3	17.0	5	4.0
MAINE	-	-	-	-	-	-
MISSISSIPPI	5	37.0	26	50.0	50	13.0
NEVADA	-	-	-	-	-	-
NEW JERSEY	11	44.7	40	47.6	45	2.9
NEW MEXICO	4	34.0	22	43.0	37	9.0
OKLAHOMA	8	50.7	51	45.1	40	-5.6
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	1	54.2	58	47.9	46	-6.3
TEXAS	524	40.7	33	42.5	36	1.8
TOTAL	1,017	40.7	33	41.8	34	1.1

State	Grade 11 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	16	33.9	22	35.2	24	1.3
CALIFORNIA	276	41.0	33	41.6	34	0.6
COLORADO	2	28.6	15	30.2	17	1.6
FLORIDA	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	3	53.0	55	50.0	50	-3.0
NEVADA	-	-	-	-	-	-
NEW JERSEY	9	46.1	42	43.4	37	-2.7
NEW MEXICO	6	51.0	51	42.0	35	-9.0
OKLAHOMA	10	39.4	30	43.8	38	4.4
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	1	36.5	26	46.3	42	9.8
TEXAS	397	39.5	30	41.4	34	1.9
TOTAL	720	40.1	32	41.4	34	1.3

Table B.2 (continued)

State	Grade 12 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	9	38.3	29	33.4	21	-4.9
CALIFORNIA	156	38.7	29	40.0	31	1.3
COLORADO	3	43.0	37	25.0	11	-18.0
FLORIDA	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	2	47.0	44	48.0	46	1.0
NEVADA	-	-	-	-	-	-
NEW JERSEY	1	34.0	22	17.0	5	-17.0
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	1	67.0	79	57.5	62	-9.5
PENNSYLVANIA	-	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-	-
SOUTH DAKOTA	1	18.9	7	39.0	30	20.1
TEXAS	287	40.2	32	41.8	34	1.6
TOTAL	460	39.7	31	40.9	33	1.2

Table B.3

Chapter 1 Migrant Education Reading Achievement Results for Students Tested on a Fall-Spring Schedule--1986-87

State	Kindergarten Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	15	72.8	86	58.1	65	-14.7
ARKANSAS	-	-	-	-	-	-
CALIFORNIA	-	-	-	-	-	-
COLORADO	11	17.8	6	34.1	22	16.3
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	-	-	-	-	-	-
NEVADA	-	-	-	-	-	-
NEW JERSEY	-	-	-	-	-	-
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	13	29.6	15	41.9	35	12.3
PENNSYLVANIA	-	-	-	-	-	-
TENNESSEE	1	29.1	15	37.1	27	8.0
TOTAL	40	42.5	36	45.7	41	3.2

State	Grade 1 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	-	-	-	-	-	-
CALIFORNIA	-	-	-	-	-	-
COLORADO	30	37.1	27	41.1	33	4.0
IDAHO	-	-	-	-	-	-
MAINE	55	50.7	51	51.2	52	0.5
MISSISSIPPI	-	-	-	-	-	-
NEVADA	24	14.5	4	21.0	8	6.5
NEW JERSEY	20	16.1	5	40.0	31	23.9
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	87	45.7	41	50.3	50	4.6
PENNSYLVANIA	38	37.3	27	45.4	41	8.1
TENNESSEE	5	28.3	15	63.6	74	35.3
TOTAL	259	39.1	30	45.5	41	6.4

State	Grade 2 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	250	29.0	15	40.0	31	11.0
CALIFORNIA	705	28.4	15	35.5	24	7.1
COLORADO	36	38.4	29	49.1	48	10.7
IDAHO	52	31.1	18	36.7	26	5.6
MAINE	72	47.6	45	49.9	49	2.3
MISSISSIPPI	108	50.5	51	56.8	61	6.3
NEVADA	12	44.0	38	46.9	44	2.9
NEW JERSEY	23	38.1	28	38.1	28	0.0
NEW MEXICO	4	35.3	24	41.8	34	6.5
OKLAHOMA	75	37.4	27	41.8	34	4.4
PENNSYLVANIA	17	37.2	27	42.8	36	5.6
TENNESSEE	4	25.0	11	38.6	29	13.6
TOTAL	1,358	32.6	20	39.8	31	7.2

Table B.3 (continued)

State	Grade 3 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	278	26.0	12	37.0	26	11.0
CALIFORNIA	640	28.9	15	37.4	27	8.5
COLORADO	42	36.1	25	38.0	28	1.9
IDAHO	50	34.8	23	46.4	43	11.6
MAINE	59	48.5	47	50.9	51	2.4
MISSISSIPPI	91	34.2	22	42.5	36	8.3
NEVADA	11	39.4	30	30.7	18	-8.7
NEW JERSEY	30	30.6	17	41.1	33	10.5
NEW MEXICO	9	35.8	25	45.9	42	10.1
OKLAHOMA	59	30.3	17	37.4	27	7.1
PENNSYLVANIA	14	36.2	25	38.8	29	2.6
TENNESSEE	8	41.9	35	54.9	59	13.0
TOTAL	1,291	30.4	17	38.9	29	8.5

State	Grade 4 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	268	33.0	21	40.0	31	7.0
CALIFORNIA	763	30.9	18	39.3	30	8.4
COLORADO	33	30.1	17	40.0	31	9.9
IDAHO	32	30.8	18	36.5	26	5.7
MAINE	49	47.5	45	52.7	55	5.2
MISSISSIPPI	112	33.8	22	41.9	35	8.1
NEVADA	3	41.5	34	31.6	19	-9.9
NEW JERSEY	18	21.2	8	30.0	17	8.8
NEW MEXICO	1	43.0	37	51.0	51	8.0
OKLAHOMA	59	37.6	27	43.3	37	5.7
PENNSYLVANIA	12	36.6	26	42.1	35	5.5
TENNESSEE	9	50.3	50	58.9	66	8.6
TOTAL	1,359	32.5	20	40.3	32	7.8

State	Grade 5 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	229	29.0	15	35.0	23	6.0
CALIFORNIA	848	31.3	18	38.4	29	7.1
COLORADO	29	31.2	18	34.9	23	3.7
IDAHO	33	27.7	14	31.5	19	3.8
MAINE	57	46.1	42	47.5	45	1.4
MISSISSIPPI	121	30.5	17	35.6	24	5.1
NEVADA	7	41.9	35	38.6	29	-3.3
NEW JERSEY	14	34.8	23	42.6	36	7.8
NEW MEXICO	3	42.7	36	33.0	21	-9.7
OKLAHOMA	51	37.1	27	41.4	34	4.3
PENNSYLVANIA	13	37.8	28	43.5	37	5.7
TENNESSEE	3	39.5	30	47.7	45	8.2
TOTAL	1,408	31.8	19	37.9	28	6.1

Table B.3 (continued)

State	Grade 6 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	169	35.0	23	41.0	33	6.0
CALIFORNIA	670	32.2	19	42.7	36	10.5
COLORADO	22	35.4	24	34.7	23	-0.7
IDAHO	27	29.7	15	35.2	24	5.5
MAINE	40	42.3	35	43.2	37	0.9
MISSISSIPPI	119	28.3	15	29.8	15	1.5
NEVADA	7	21.4	8	35.1	24	13.7
NEW JERSEY	18	33.4	21	40.2	32	6.8
NEW MEXICO	3	14.7	4	21.0	8	6.3
OKLAHOMA	42	40.4	32	44.1	38	3.7
PENNSYLVANIA	12	34.6	23	42.5	36	7.9
TENNESSEE	3	43.3	37	50.7	51	7.4
TOTAL	1,132	32.8	20	40.7	33	7.9

State	Grade 7 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	93	29.0	15	35.0	23	6.0
CALIFORNIA	343	31.8	19	35.7	24	3.9
COLORADO	18	29.5	15	42.6	36	13.1
IDAHO	17	20.7	8	26.2	12	5.5
MAINE	56	46.7	43	51.2	52	4.5
MISSISSIPPI	84	25.5	12	33.1	21	7.6
NEVADA	3	18.9	6	27.9	14	9.0
NEW JERSEY	10	29.4	15	37.4	27	8.0
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	9	37.5	27	33.5	21	-4.0
PENNSYLVANIA	6	24.7	11	33.8	22	9.1
TENNESSEE	9	48.9	48	46.9	44	-2.0
TOTAL	648	31.7	19	36.6	26	4.9

State	Grade 8 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	57	32.0	19	35.0	23	3.0
CALIFORNIA	357	29.6	15	35.0	23	5.4
COLORADO	18	34.3	22	38.8	29	4.5
IDAHO	12	64.1	74	35.3	24	-28.8
MAINE	39	46.2	42	48.9	48	2.7
MISSISSIPPI	46	26.4	13	27.3	14	0.9
NEVADA	3	35.1	24	37.8	28	2.7
NEW JERSEY	17	30.6	17	38.3	29	7.7
NEW MEXICO	3	25.0	11	33.0	21	8.0
OKLAHOMA	14	27.5	14	25.7	12	-1.8
PENNSYLVANIA	4	24.9	11	27.2	14	2.3
TENNESSEE	5	44.0	38	54.6	58	10.6
TOTAL	575	31.7	19	35.4	24	3.7

Table B.3 (continued)

State	Grade 9 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	15	38.0	28	43.0	37	5.0
CALIFORNIA	528	25.4	12	29.5	15	4.1
COLORADO	9	22.2	9	28.6	15	6.4
IDAHO	4	35.8	25	51.8	53	16.0
MAINE	17	35.9	25	36.9	26	1.0
MISSISSIPPI	31	30.5	17	37.2	27	6.7
NEVADA	4	11.1	3	18.4	6	7.3
NEW JERSEY	14	28.5	15	30.6	17	2.1
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	4	44.1	38	40.7	33	-3.4
PENNSYLVANIA	3	28.9	15	30.3	17	1.4
TENNESSEE	2	30.5	17	37.3	27	6.8
TOTAL	631	26.4	13	30.6	17	4.2

State	Grade 10 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	-	-	-	-	-	-
CALIFORNIA	288	26.7	13	29.2	15	2.5
COLORADO	2	47.1	44	58.6	65	11.5
IDAHO	1	50.0	50	48.0	46	-2.0
MAINE	13	39.4	30	43.0	37	3.6
MISSISSIPPI	23	24.0	10	24.3	11	0.3
NEVADA	1	32.3	20	18.9	7	-13.4
NEW JERSEY	6	27.3	14	25.5	12	-1.8
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	5	37.0	26	42.0	35	5.0
PENNSYLVANIA	-	-	-	-	-	-
TENNESSEE	7	23.2	10	39.9	31	16.7
TOTAL	346	27.3	14	29.9	17	2.6

State	Grade 11 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	-	-	-	-	-	-
CALIFORNIA	159	23.8	10	26.0	12	2.2
COLORADO	2	40.1	32	41.1	33	1.0
IDAHO	4	32.7	20	45.0	40	12.3
MAINE	8	47.7	45	55.5	60	7.8
MISSISSIPPI	21	20.6	8	24.3	11	3.7
NEVADA	1	64.9	76	65.6	77	0.7
NEW JERSEY	3	21.3	8	34.7	23	13.4
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	2	14.5	4	20.5	8	6.0
PENNSYLVANIA	-	-	-	-	-	-
TENNESSEE	1	41.9	35	26.3	13	-15.6
TOTAL	201	24.9	11	27.8	14	2.9

Table B.3 (continued)

State	Grade 12 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	-	-	-	-	-	-
CALIFORNIA	75	23.7	10	22.1	9	-1.6
COLORADO	3	42.2	35	45.4	41	3.2
IDAHO	-	-	-	-	-	-
MAINE	1	32.0	19	35.0	23	3.0
MISSISSIPPI	6	28.7	15	29.1	15	0.4
NEVADA	2	63.5	74	65.0	76	1.5
NEW JERSEY	2	29.0	15	37.0	26	8.0
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	4	23.1	10	21.8	9	-1.3
PENNSYLVANIA	-	-	-	-	-	-
TENNESSEE	2	9.2	2	27.6	14	18.4
TOTAL	95	25.1	12	24.7	11	-0.6

Table B.4

Chapter 1 Migrant Education Mathematics Achievement Results for Students Tested on a Fall-Spring Schedule--1986-87

State	Kindergarten Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	-	-	-	-	-	-
CALIFORNIA	-					
COLORADO	7	34.7	23	31.3	18	-3.4
IDAHO	-	-	-	-	-	-
MAINE	-	-	-	-	-	-
MISSISSIPPI	-	-	-	-	-	-
NEVADA	-	-	-	-	-	-
NEW JERSEY	-	-	-	-	-	-
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	13	26.5	13	29.6	15	3.1
PENNSYLVANIA	-	-	-	-	-	-
TENNESSEE	1	37.7	28	57.5	61	19.8
TOTAL	21	29.8	16	31.5	19	1.7

State	Grade 1 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	5	15.4	5	24.2	11	8.8
ARKANSAS	-	-	-	-	-	-
CALIFORNIA	-	-	-	-	-	-
COLORADO	10	40.2	32	39.6	31	-0.6
IDAHO	-	-	-	-	-	-
MAINE	45	44.5	38	43.4	37	-1.1
MISSISSIPPI	-	-	-	-	-	-
NEVADA	7	21.9	9	35.1	24	13.2
NEW JERSEY	8	31.6	19	54.1	57	22.5
NEW MEXICO	-	-	-	-	-	-
OKLAHOMA	75	40.4	32	47.4	45	7.0
PENNSYLVANIA	9	39.2	30	51.9	53	12.7
TENNESSEE	4	47.4	45	73.4	86	26.0
TOTAL	163	39.6	31	45.8	42	6.2

State	Grade 2 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	10	29.1	15	30.7	18	1.6
ARKANSAS	166	46.0	42	62.0	71	16.0
CALIFORNIA	725	33.8	22	46.8	44	13.0
COLORADO	17	34.7	23	48.1	46	13.4
IDAHO	20	38.7	29	40.7	33	2.0
MAINE	58	50.7	51	49.1	48	-1.6
MISSISSIPPI	57	48.0	46	56.7	61	8.7
NEVADA	6	44.7	40	60.0	68	15.3
NEW JERSEY	14	45.0	40	49.0	48	4.0
NEW MEXICO	7	33.6	21	30.9	18	-2.7
OKLAHOMA	57	36.3	25	41.8	34	5.5
PENNSYLVANIA	9	25.2	11	55.7	60	30.5
TENNESSEE	4	34.9	23	43.8	38	8.9
TOTAL	1,150	37.4	27	49.2	48	11.8

Table B.4 (continued)

State	Grade 3 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	3	25.3	12	28.3	15	3.0
ARKANSAS	202	42.0	35	52.0	53	10.0
CALIFORNIA	632	33.7	22	43.5	37	9.8
COLORADO	21	32.6	20	41.8	34	9.2
IDAHO	39	37.2	27	43.1	37	5.9
MAINE	49	49.4	48	51.0	51	1.6
MISSISSIPPI	46	34.4	23	44.0	38	9.6
NEVADA	7	24.1	10	27.9	14	3.8
NEW JERSEY	20	35.4	24	54.7	58	19.3
NEW MEXICO	12	29.7	15	44.8	40	15.1
OKLAHOMA	47	36.2	25	44.4	38	8.2
PENNSYLVANIA	3	38.3	29	57.8	61	19.5
TENNESSEE	8	47.2	44	53.3	56	6.1
TOTAL	1,089	36.2	25	45.6	41	9.4

State	Grade 4 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	5	28.2	15	30.7	18	2.5
ARKANSAS	208	41.0	33	50.0	50	9.0
CALIFORNIA	744	36.9	26	46.9	44	10.0
COLORADO	11	32.5	20	36.3	25	3.8
IDAHO	23	43.6	38	43.9	38	0.3
MAINE	42	47.4	45	56.9	61	9.5
MISSISSIPPI	59	36.0	25	45.1	40	9.1
NEVADA	1	20.4	8	25.3	12	4.9
NEW JERSEY	16	38.5	29	41.8	34	3.3
NEW MEXICO	13	24.9	11	31.6	19	6.7
OKLAHOMA	46	33.6	21	39.7	31	6.1
PENNSYLVANIA	3	21.8	9	35.2	24	13.4
TENNESSEE	8	53.9	57	72.4	85	18.5
TOTAL	1,179	37.8	28	47.1	44	9.3

State	Grade 5 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	5	26.3	13	28.2	15	1.9
ARKANSAS	170	39.0	30	44.0	38	5.0
CALIFORNIA	844	38.1	28	47.3	44	9.2
COLORADO	18	34.9	23	39.3	30	4.4
IDAHO	28	25.7	12	40.3	32	14.6
MAINE	46	46.5	43	48.4	47	1.9
MISSISSIPPI	64	35.7	24	45.0	40	9.3
NEVADA	4	22.7	9	44.8	40	22.1
NEW JERSEY	16	38.0	28	48.9	48	10.9
NEW MEXICO	6	28.4	15	47.2	44	18.8
OKLAHOMA	52	35.6	24	39.3	30	3.7
PENNSYLVANIA	5	27.1	13	37.6	27	10.5
TENNESSEE	3	29.7	15	41.1	33	11.4
TOTAL	1,261	37.8	28	46.1	42	8.3

Table B.4 (continued)

State	Grade 6 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	6	29.9	17	32.3	20	2.4
ARKANSAS	117	39.0	30	46.0	42	7.0
CALIFORNIA	642	38.2	28	49.3	48	11.1
COLORADO	10	40.4	32	37.6	27	-2.8
IDAHO	24	33.5	21	44.1	38	10.6
MAINE	30	47.6	45	51.5	52	3.9
MISSISSIPPI	76	40.4	32	42.9	36	2.5
NEVADA	7	34.7	23	37.5	27	2.8
NEW JERSEY	17	35.7	24	47.8	45	12.1
NEW MEXICO	4	33.5	21	42.5	36	9.0
OKLAHOMA	32	37.0	26	46.1	42	9.1
PENNSYLVANIA	4	29.3	15	53.4	56	24.1
TENNESSEE	3	35.8	25	60.1	68	24.3
TOTAL	972	38.4	29	47.9	46	9.5

State	Grade 7 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	4	25.3	12	29.1	15	3.8
ARKANSAS	75	38.0	28	47.0	44	9.0
CALIFORNIA	347	36.9	26	40.8	33	3.9
COLORADO	3	24.7	11	24.1	10	-0.6
IDAHO	11	36.8	26	37.5	27	0.7
MAINE	51	44.7	40	46.4	43	1.7
MISSISSIPPI	66	32.9	20	39.2	30	6.3
NEVADA	2	40.2	32	31.8	19	-8.4
NEW JERSEY	7	39.0	30	44.1	38	5.1
NEW MEXICO	14	33.5	21	40.9	33	7.4
OKLAHOMA	8	32.0	19	39.3	30	7.3
PENNSYLVANIA	2	35.8	25	32.5	20	-3.3
TENNESSEE	9	38.5	29	49.4	48	10.9
TOTAL	599	37.0	26	41.7	34	4.7

State	Grade 8 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	7	28.2	15	29.9	17	1.7
ARKANSAS	54	45.0	40	49.0	48	4.0
CALIFORNIA	338	37.6	27	41.1	33	3.5
COLORADO	3	41.8	34	47.1	44	5.3
IDAHO	8	38.7	29	49.4	48	10.7
MAINE	29	46.6	43	46.7	43	0.1
MISSISSIPPI	27	35.2	24	42.1	35	6.9
NEVADA	2	18.5	6	26.3	13	7.8
NEW JERSEY	14	41.0	33	46.2	42	5.2
NEW MEXICO	3	36.3	25	34.3	22	-2.0
OKLAHOMA	2	49.5	49	41.5	34	-8.0
PENNSYLVANIA	1	42.5	36	45.2	41	2.7
TENNESSEE	5	49.0	48	53.3	56	4.3
TOTAL	493	38.9	29	42.5	36	3.6

Table B.4 (continued)

State	Grade 9 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	3	25.3	12	27.2	14	1.9
ARKANSAS	16	43.0	37	41.0	33	-2.0
CALIFORNIA	494	30.5	17	37.3	27	6.8
COLORADO	1	48.9	48	50.5	51	1.6
IDAHO	5	23.4	10	29.0	15	5.6
MAINE	15	30.4	17	37.8	28	7.4
MISSISSIPPI	20	29.9	17	40.6	32	10.7
NEVADA	2	25.6	12	35.8	25	10.2
NEW JERSEY	15	37.1	27	37.8	28	0.7
NEW MEXICO	3	28.3	15	33.0	21	4.7
OKLAHOMA	1	37.1	27	43.0	37	5.9
PENNSYLVANIA	-	-	-	-	-	-
TENNESSEE	2	37.0	26	48.9	48	11.9
TOTAL	577	30.9	18	37.5	27	6.6

State	Grade 10 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	-	-	-	-	-	-
CALIFORNIA	229	32.5	20	38.1	28	5.6
COLORADO	1	29.0	15	16.0	5	-13.0
IDAHO	-	-	-	-	-	-
MAINE	9	43.6	38	47.4	45	3.8
MISSISSIPPI	22	27.2	14	26.9	13	-0.3
NEVADA	-	-	-	-	-	-
NEW JERSEY	9	31.8	19	39.7	31	7.9
NEW MEXICO	8	24.0	10	28.8	15	4.8
OKLAHOMA	-	-	-	-	-	-
PENNSYLVANIA	-	-	-	-	-	-
TENNESSEE	7	34.8	23	46.0	42	11.2
TOTAL	285	32.2	19	37.4	27	5.2

State	Grade 11 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	-	-	-	-	-	-
CALIFORNIA	124	29.7	15	37.1	27	7.4
COLORADO	-	-	-	-	-	-
IDAHO	-	-	-	-	-	-
MAINE	2	30.1	17	30.6	17	0.5
MISSISSIPPI	12	19.2	7	26.1	12	6.9
NEVADA	1	33.7	22	35.8	25	2.1
NEW JERSEY	2	37.0	26	56.0	61	19.0
NEW MEXICO	10	37.6	27	36.8	26	-0.8
OKLAHOMA	2	20.5	8	15.0	4	-5.5
PENNSYLVANIA	-	-	-	-	-	-
TENNESSEE	1	38.3	29	23.0	10	-15.3
TOTAL	154	29.5	16	36.0	25	6.5

Table B.4 (continued)

State	Grade 12 Number Tested	Pretest NCE	Pretest Percentile	Posttest NCE	Posttest Percentile	Gain NCE
ALABAMA	-	-	-	-	-	-
ARKANSAS	-	-	-	-	-	-
CALIFORNIA	43	31.9	19	34.5	23	2.6
COLORADO	1	30.7	18	33.7	22	3.0
IDAHO	-	-	-	-	-	-
MAINE	1	18.0	6	18.0	6	0.0
MISSISSIPPI	4	28.1	14	30.0	17	1.9
NEVADA	2	37.1	27	37.5	27	0.4
NEW JERSEY	2	40.0	31	56.0	61	16.0
NEW MEXICO	5	34.8	23	35.6	24	0.8
OKLAHOMA	3	8.6	2	14.6	4	6.0
PENNSYLVANIA	-	-	-	-	-	-
TENNESSEE	2	15.4	5	25.1	11	9.7
TOTAL	63	30.4	17	33.6	21	3.2